CANADA
OVERSEAS
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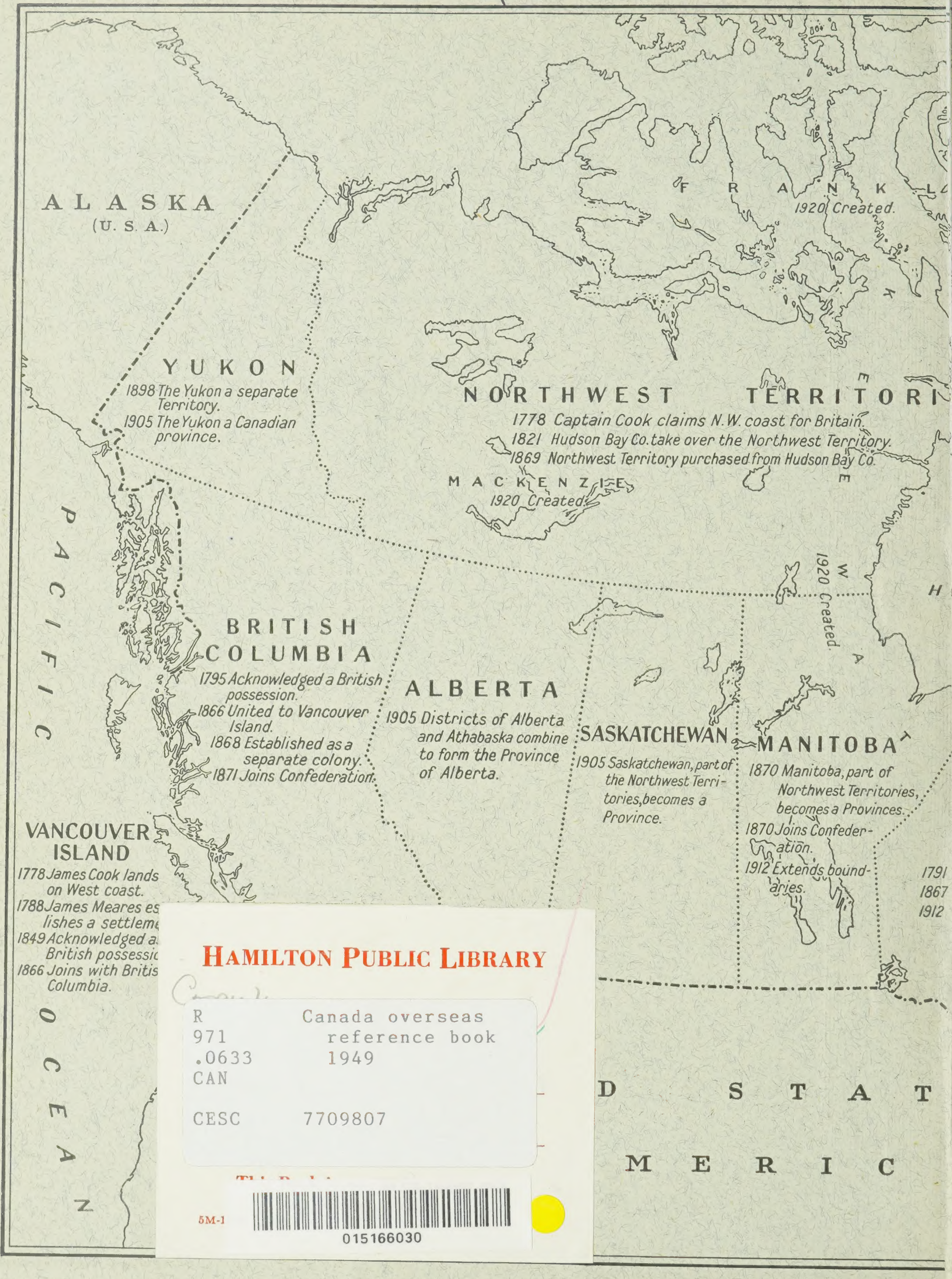
Same map at back.


ALASKA
(U. S. A.)
YUKON
1898 The Yukon a separate Territory.
1905 The Yukon a Canadian province.
F R A N K L
1920 Created.
NORTHWEST TERRITORI
1778 Captain Cook claims N.W. coast for Britain.
1821 Hudson Bay Co. take over the Northwest Territory.
1869 Northwest Territory purchased from Hudson Bay Co.
MACKENZIE
1920 Created.
K E E W A
1920 Created.
H
PACIFIC OCEAN
BRITISH COLUMBIA
1795 Acknowledged a British possession.
1866 United to Vancouver Island.
1868 Established as a separate colony.
1871 Joins Confederation.
ALBERTA
1905 Districts of Alberta and Athabaska combine to form the Province of Alberta.
SASKATCHEWAN
1905 Saskatchewan, part of the Northwest Territories, becomes a Province.
MANITOBA
1870 Manitoba, part of Northwest Territories, becomes a Provinces.
1870 Joins Confederation.
1912 Extends boundaries.
1791
1867
1912
VANCOUVER ISLAND
1778 James Cook lands on West coast.
1788 James Meares es lishes a settleme
1849 Acknowledged a British possessic
1866 Joins with Britis Columbia.
D S T A T
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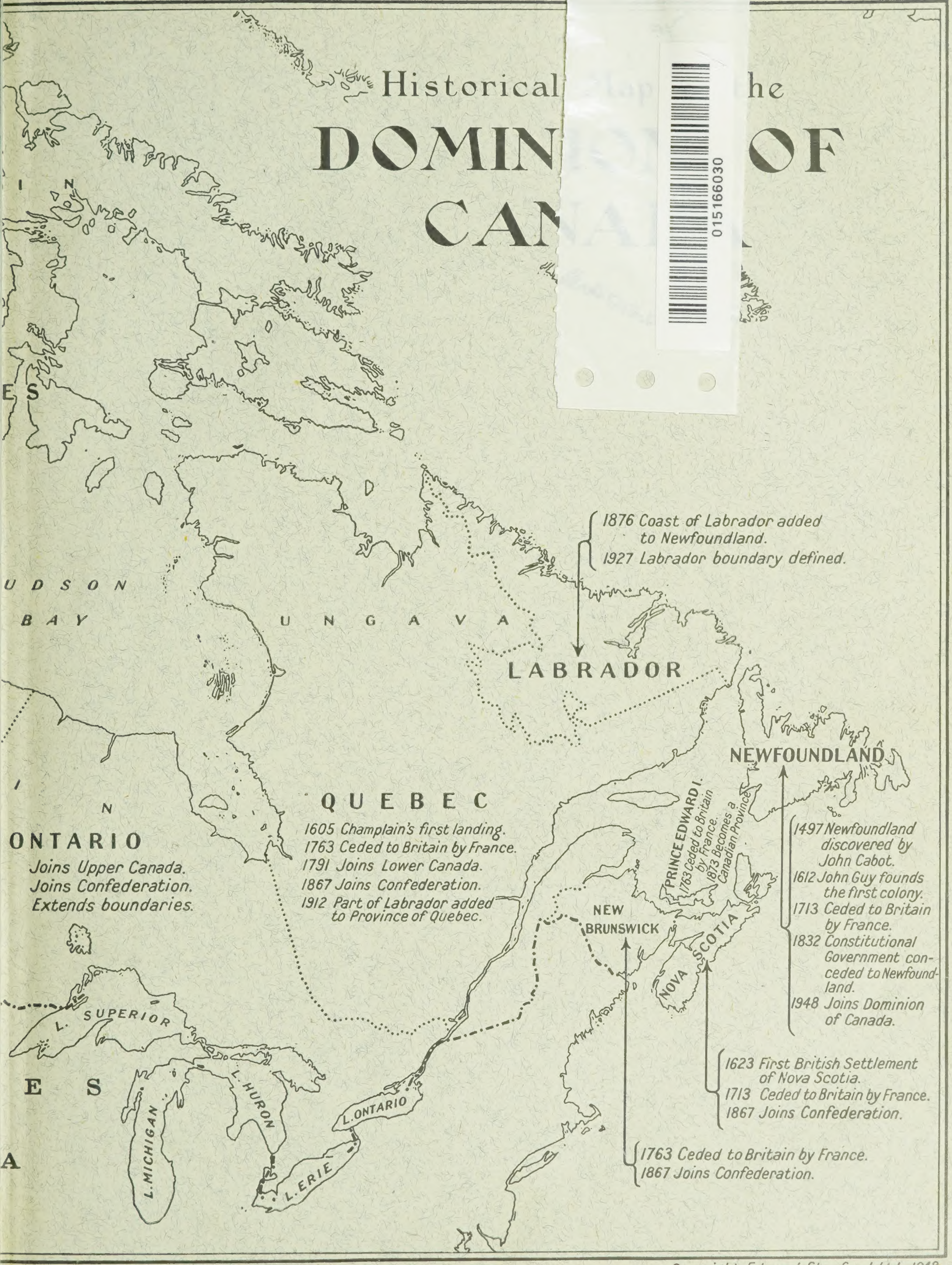
Historical
he
DOMIN
OF
CAN
UDSON
BAY
UNGAVA
LABRADOR
QUEBEC
ONTARIO
NEWFOUNDLAND
PRINCE EDWARD I.
NEW BRUNSWICK
NOVA SCOTIA
L. SUPERIOR
L. MICHIGAN
L. HURON
L. ONTARIO
L. ERIE
ES
A

1876 Coast of Labrador added to Newfoundland.
1927 Labrador boundary defined.

1605 Champlain's first landing.
1763 Ceded to Britain by France.
1791 Joins Lower Canada.
1867 Joins Confederation.
1912 Part of Labrador added to Province of Quebec.

Joins Upper Canada.
Joins Confederation.
Extends boundaries.

1763 Ceded to Britain by France.
1873 Becomes a Canadian Province.

1497 Newfoundland discovered by John Cabot.
1612 John Guy founds the first colony.
1713 Ceded to Britain by France.
1832 Constitutional Government conceded to Newfoundland.
1948 Joins Dominion of Canada.

1623 First British Settlement of Nova Scotia.
1713 Ceded to Britain by France.
1867 Joins Confederation.

1763 Ceded to Britain by France.
1867 Joins Confederation.

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CANADA
OVERSEAS REFERENCE BOOK

including

THE NORTHWEST TERRITORIES
THE YUKON, LABRADOR AND
NEWFOUNDLAND

Advisory Editor:
ROBERT HAMILTON COATS, LL.D., F.R.S.C.
Former Dominion Statistician

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CANADA OVERSEAS REFERENCE BOOK
First Published April, 1949

The Canada Year Book, published by authority of the Minister of Trade and Commerce by the Dominion Bureau of Statistics, Ottawa, has been used as a source of some basic material appearing in the text and tables of this book.

Cop. 1

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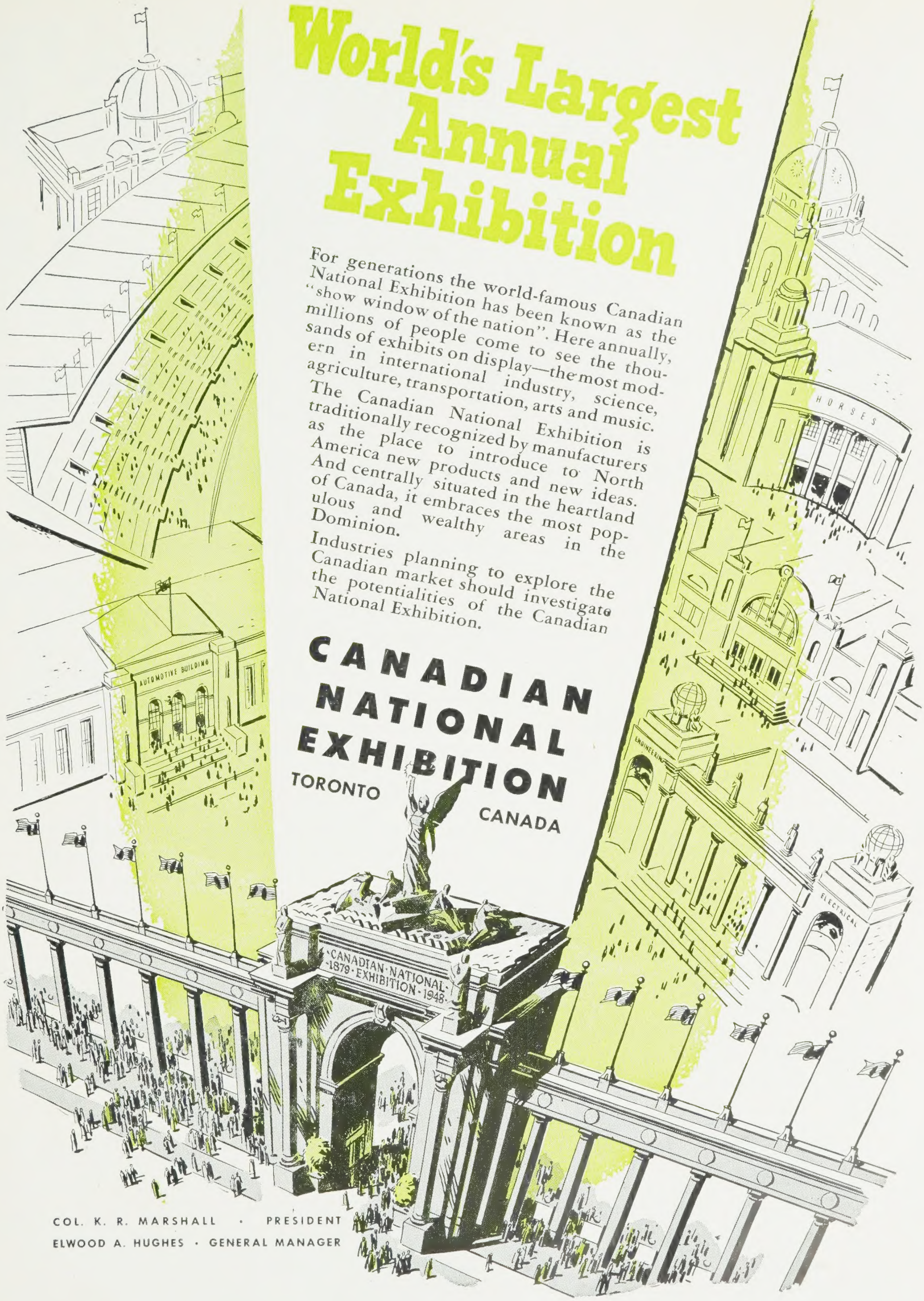
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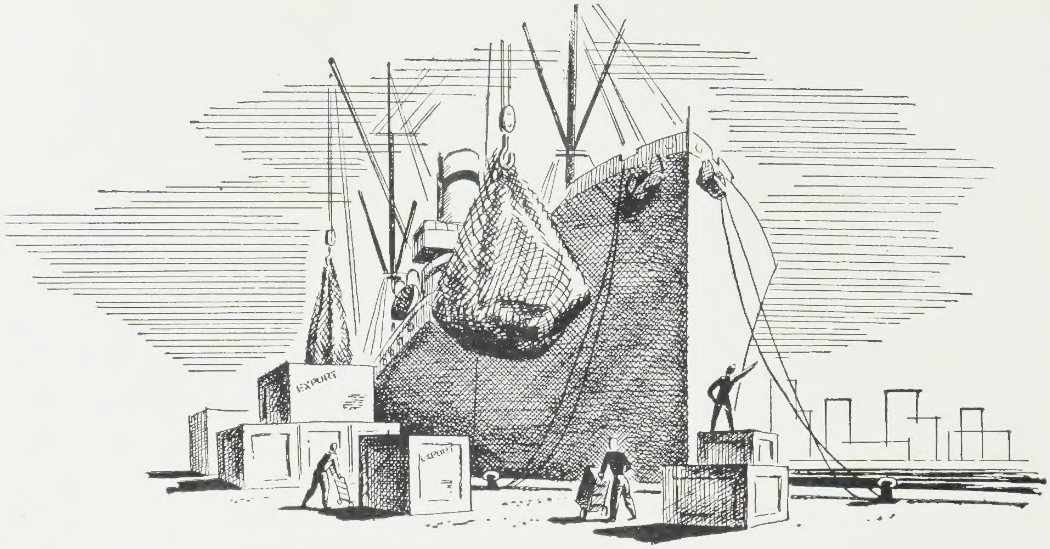

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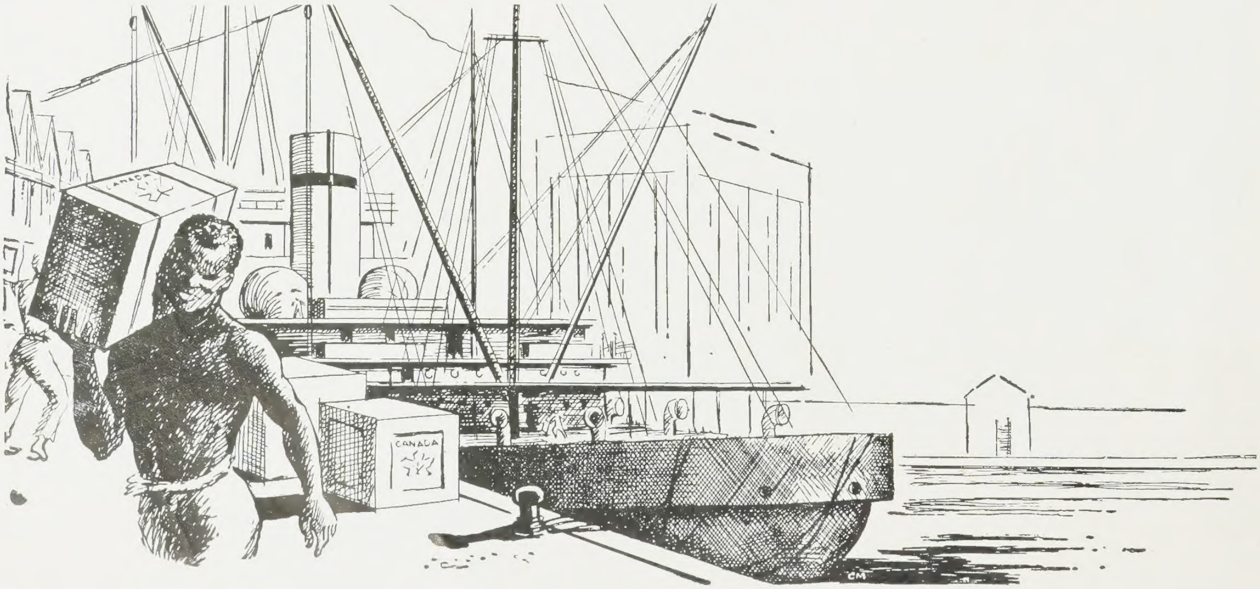

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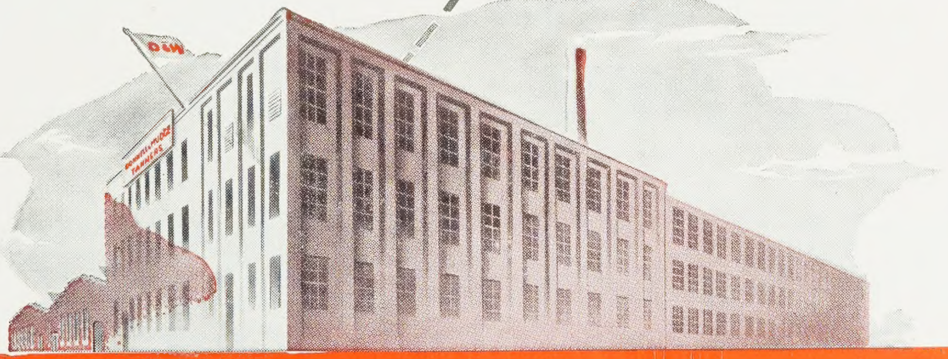

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NEWFOUNDLAND

Geological Survey of Newfoundland

The functions of the Geological Survey are to examine and map geologically areas which appear to have definite prospects for mineral development, to administer the Mining Law, to collect mineral statistics, and to gather accurate scientific data on the mineral resources of Newfoundland and Newfoundland Labrador.

Since 1934 the Survey has examined areas which hold promise of development of gold, molybdenite, lead, zinc, nickel, copper, iron, fluorspar, gypsum, pyrophyllite, marble, natural cement and petroleum deposits. During 1946 geological work was begun on the coast of Labrador and was continued in 1947 and 1948. The systematic mapping of the Geology of Newfoundland was continued by competent Geologists.

Diamond drilling to investigate potential salt deposits was begun in 1946 and it is hoped to continue this work systematically. The extension of mining enterprise is being fostered by the Commission of Government. Local conditions as to taxation, labour and power supplies compare favourably with those in any part of the British Empire.

Canada's steel and aluminum industries are directly dependent on Newfoundland iron ore, limestone and fluorspar.

The following Bulletins have been recently published or are being prepared for early publication:—

BULLETINS	AUTHOR
No. 13 Shorter contributions to the Economic Geology of South-east Newfoundland : (TO BE PUBLISHED)	
Mineral Deposits of the Placentia Bay Area	N. E. Chute
Natural Cement Rock of Trinity Bay	J. C. Bogert
Pre-Cambrian Iron Ores of South-eastern Newfoundland	A. L. Howland
No. 14 Shorter contributions to the Economic Geology of Western Newfoundland : (TO BE PUBLISHED)	
Titaniferous Iron Deposits of Bay St. George Area	D. M. Baird
Iron Deposits of Indian Head, Bay St. George	A. V. Heyl
Strontium Deposits of Port au Port Area.	H. Johnson
No. 15 Geology and Mineral Deposits of Fleur de Lys Areas	J. O. Fuller
No. 18 Geology and Mineral Deposits of the Rencontre East Area (IN PRESS)	D. E. White
No. 19 Bedrock Geology of the Seaboard region of Nfld.-Labrador	E. H. Kranck
No. 20 Copper Deposits of Newfoundland.	G. V. Douglas D. Williams O. N. Rove et al.
No. 21 Geology and Mineral Deposits of Baie Verte Ming's Bight Area	K. D. Watson
No. 22 Geology and Mineral Deposits of Little Bay Area	H. J. MacLean
No. 23 Geology and Mineral Deposits of St. Lawrence Area	R. E. Van Alstine
No. 24 Geology and Mineral Deposits of the Southern White Bay Area	F. Betz, Jr.
No. 25 Geology and Mineral Deposits of Hermitage Bay Area (TO BE PUBLISHED)	K. Widmer
No. 26 Geology and Mineral Deposits of Port au Port Area (TO BE PUBLISHED)	J. W. Sullivan
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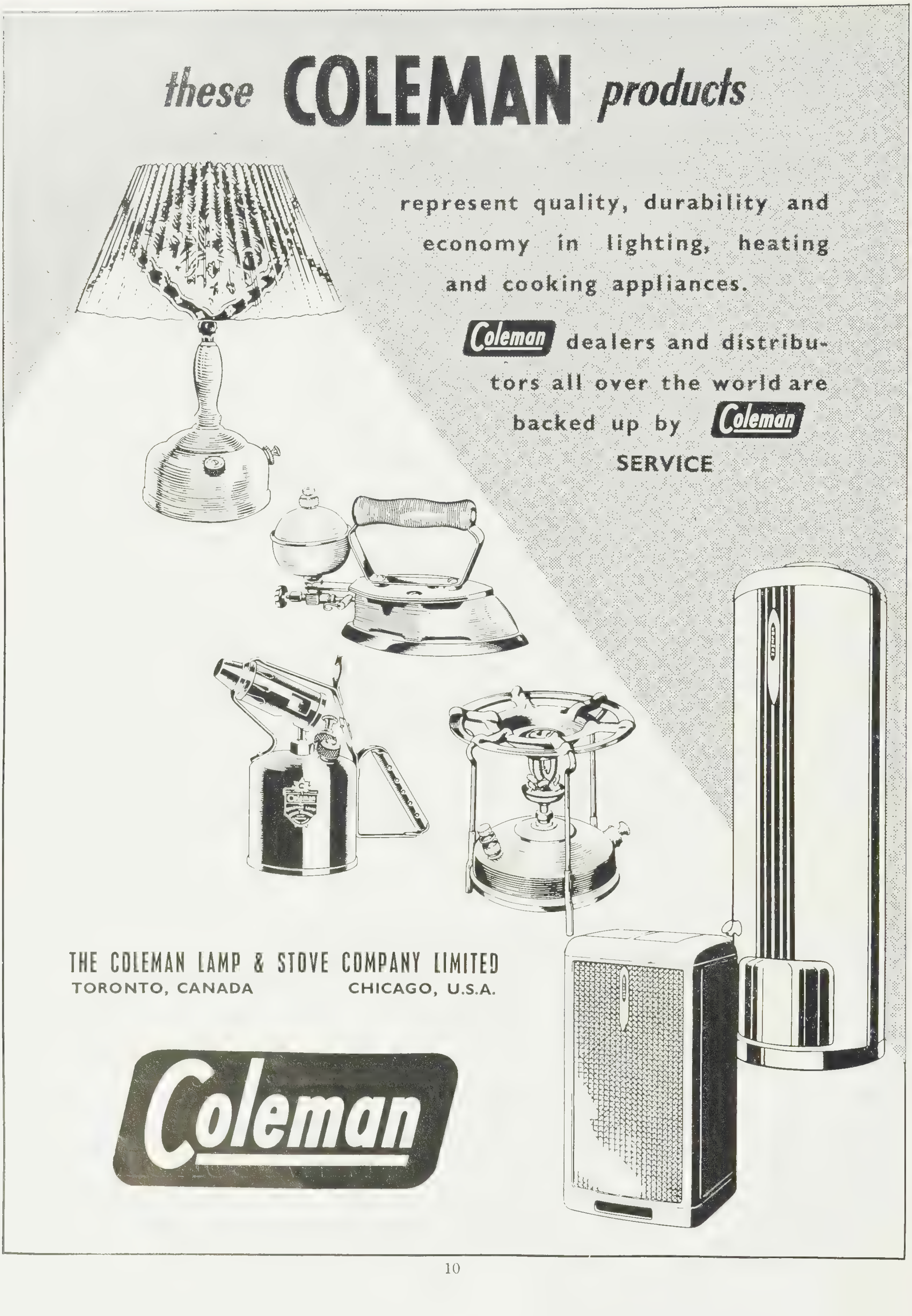

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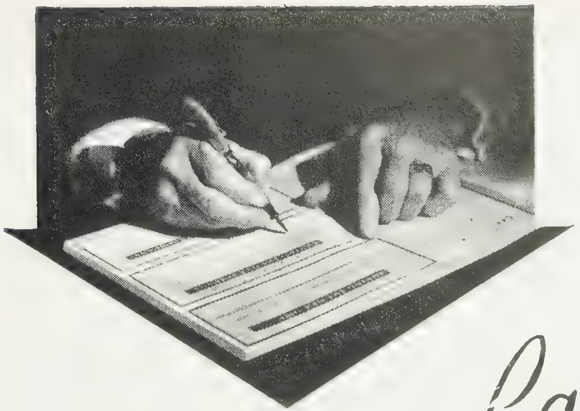

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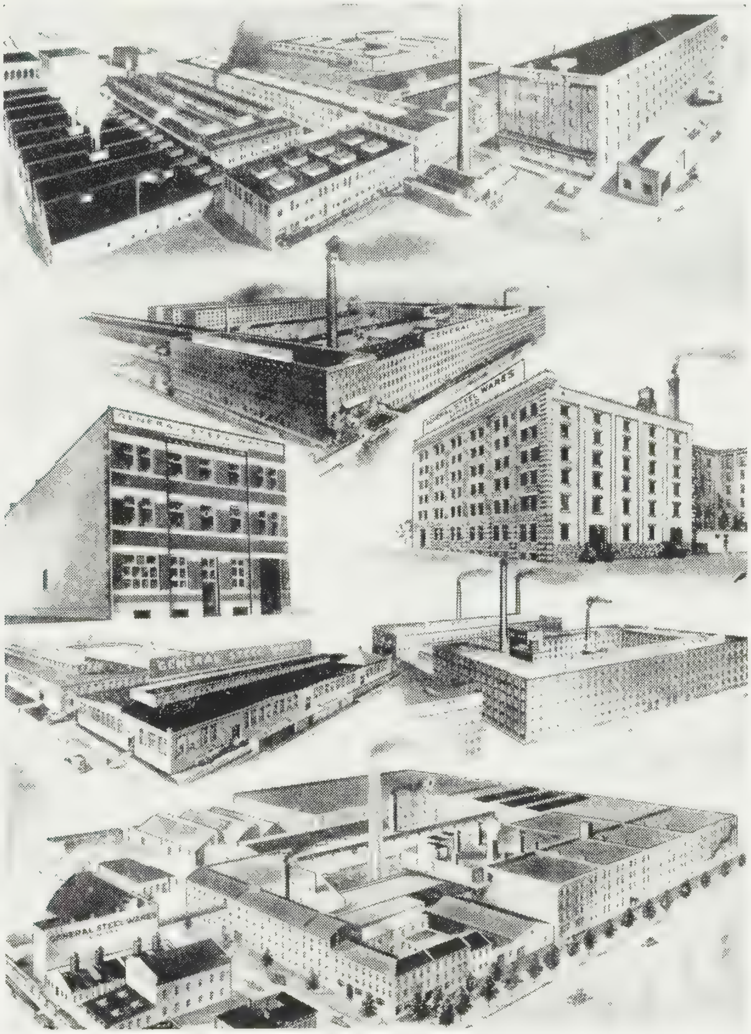

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PUBLISHERS' FOREWORD

IN presenting the first edition of this reference book, the publishers are fully conscious of the fact that there may be many omissions, but they are confident, nevertheless, that the reader will find much useful factual information which is not available elsewhere and is here gathered into a single volume.

While nearly a hundred different individuals have contributed to this volume and have devoted their time and effort to its preparation, it would have been quite impossible to have produced the CANADA OVERSEAS REFERENCE BOOK without the very helpful co-operation which the publishers have received from the Canadian Government.

First, we have to acknowledge the untiring help and advice which has been given to us by our Advisory Editor, Dr. Hamilton Coats of Toronto University and former Dominion Statistician. Dr. Coats, for a period of more than two years, has devoted a considerable amount of his time to planning the CANADA OVERSEAS REFERENCE BOOK, and to giving advice to the publishers on the thousand and one difficult problems connected with its production.

Our thanks are also particularly due to Miss Frances Sharp of New York who has made many journeys through the Dominion, and who has travelled many thousands of miles, in connection with the planning of this reference book in its initial stage.

For permission to reprint two articles we are indebted to Mr. Thorsten Sellin, the Editor of the ANNALS of the American Academy of Political and Social Science.

While we wish to thank the many officials of the Dominion Government, we should particularly like to mention Mr. Allan Anderson of the Department of External Affairs; Mr. B. C. Butler of the Department of Trade and Commerce, who have both been most helpful.

Our thanks are also due to Mr. Herbert Marshall, the Dominion Statistician, for permission to reprint much material which is Canadian Government copyright, and to Mr. A. E. Millward, editor of the CANADA YEAR BOOK. In conclusion we should like to thank Mr. Campbell Moodie and his staff at Canada House, London and Colonel W. F. Rendell, C.B.E., of the Newfoundland Government offices in London.

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CANADA'S NATIONAL NEWSPAPER

TORONTO - CANADA

INTRODUCTION

By ROBERT HAMILTON COATS

LL.D., F.R.S.C.

This Reference Book has been compiled with the object of being of practical assistance to all those interested in Canada and Newfoundland. The primary appeal is to the business executive who trades with or is considering trading with Canada or visiting Canada on business. The book should, however, be of equal assistance to the economist, educationalist, and sociologist.

The preparation of such a work has been no light task and could not have been made possible without the co-operation and assistance of the Canadian Government Departments. Tribute must also be paid to the painstaking efforts of the many contributors, a glance at whose names will bear testimony to the nature of their qualifications for the task.

The second World War brought vast changes in international affairs, bringing a new orientation of political and industrial leadership. It is still too soon to forecast the full extent of such changes, for we stand on the threshold of a new world. It can, however, be claimed with all confidence that Canada will play a major role in the future of world affairs. No country is richer in the variety and quantity of her natural resources as the following pages amply illustrate; especially significant is her wealth of those resources which science is only just beginning to harness. What coal did for Britain in the nineteenth century, Uranium may well do for Canada in the future.

More immediate to our present purpose is the tremendous advance made by Canadian industrial production during the recent war, an advance which carried her to third place in world industrial capacity. All who contemplate doing business with Canada should ponder on this change and its implications. A careful study of the reports and statistics incorporated in this book should help to guide the prospective trader. Broadly speaking it would appear that in the future Canada will be more than self-sufficient in the production of primary and secondary consumer goods, and that she will be able to meet her own needs for capital equipment. Canada would appear therefore to be destined to become a large exporting nation, but to achieve economic equilibrium she may well have to accept payment for many of her exports with imports.

Marching hand-in-hand with industrial development has been the development in social conditions. This reference book is rich in its wealth of detail setting out what has already been achieved and pointing the way to future progress.

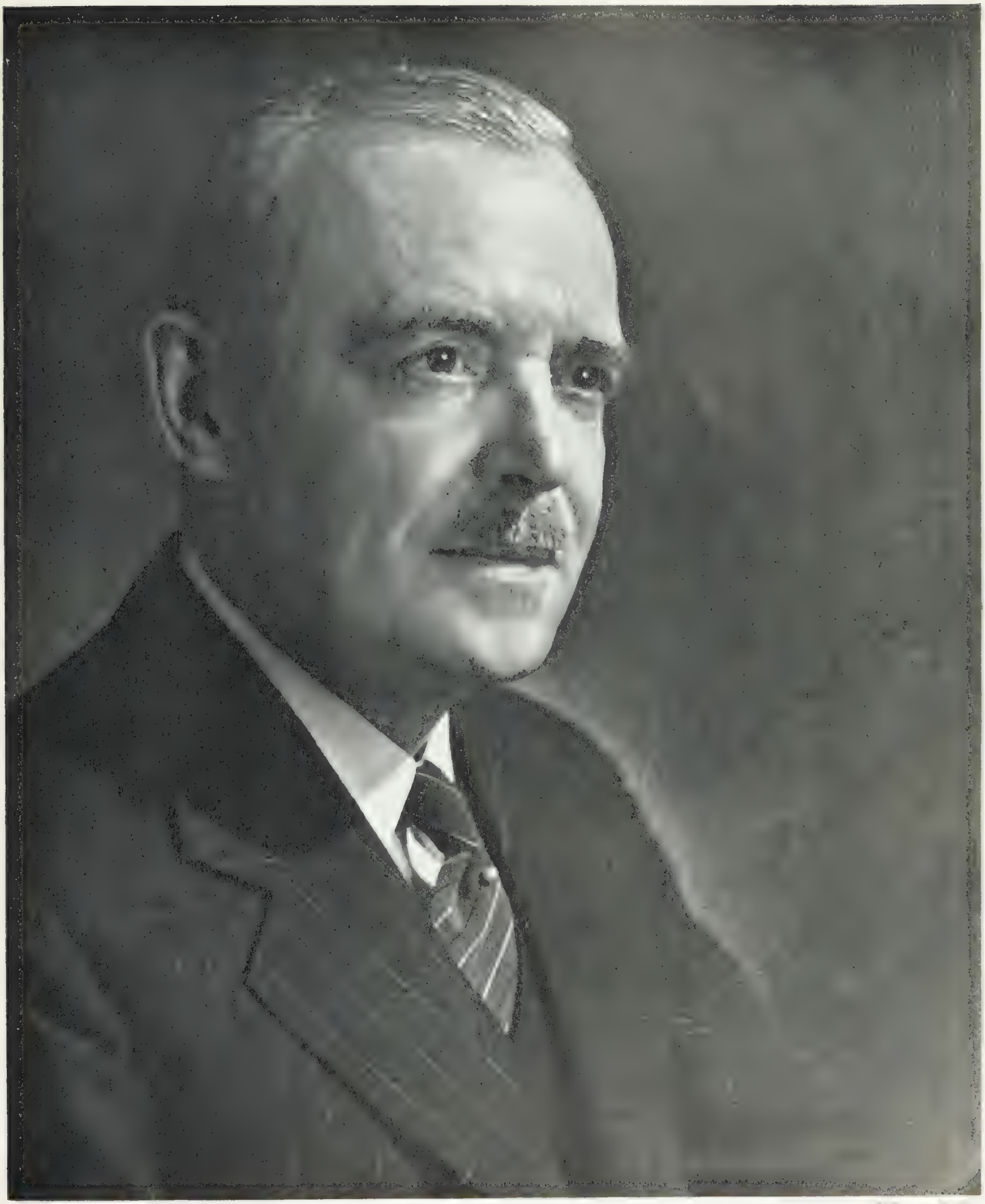
And finally attention must be drawn to cultural development. Here again, Canada is extraordinarily well-placed to face the future. She is a young nation with all the enthusiasm and fresh outlook of youth, yet behind her are the traditions of two of the richest heritages of the Old World.

The Right Honourable Louis S. St. Laurent, Prime Minister of Canada, in a statement to the Canadian House of Commons on April 29, 1948, said:—

"It is now, I believe, an accepted fact that practically everything of importance that happens in the international sphere is of interest to Canada—often of direct and immediate interest. For us there is no escape, even if we wish to seek one, in isolation or indifference. Recent events have brought home to all of us the increasing threat to our democratic national existence. We know that Canada's boundaries against such a threat extend far beyond her physical frontiers. We know also that a line is being drawn which runs through the hearts of free men everywhere, and that on our side of that line are all those in every country who work and fight to preserve the freedom and dignity of the individual against reactionary dictatorship, whether communist or fascist. We know that there can be no neutrality in this conflict, which is as spiritual as it is political.

"In the realm of economic and social welfare as well, it is clear as it never was before that we cannot live unto ourselves alone. Opinions may differ—I suppose they do differ—as to whether the economic and trade policies of this government are wise; but there will, I am sure, be no quarrel with the statement that they are now decisively influenced by events far beyond our borders.

"In the circumstances of the present the organisation of collective defence is the most effective guarantee of peace. The pursuit of this course, steadfastly, unprovocatively, and constructively is our best hope for disproving the gloomy predictions of inevitable war."



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Mr. Howe, who has been a member of the Cabinet since 1935, *became Minister of Transport in* 1936. *He has also been Minister of Munitions and Supply, Minister of Reconstruction, Minister of Reconstruction and Supply before becoming Minister of Trade and Commerce in* 1948.

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Mr. MacKinnon was Minister without Portfolio in Mr. King's Cabinet in 1937. *From* 1940 *till* 1948, *when he was appointed Minister of Mines, he was Minister of Trade and Commerce.*

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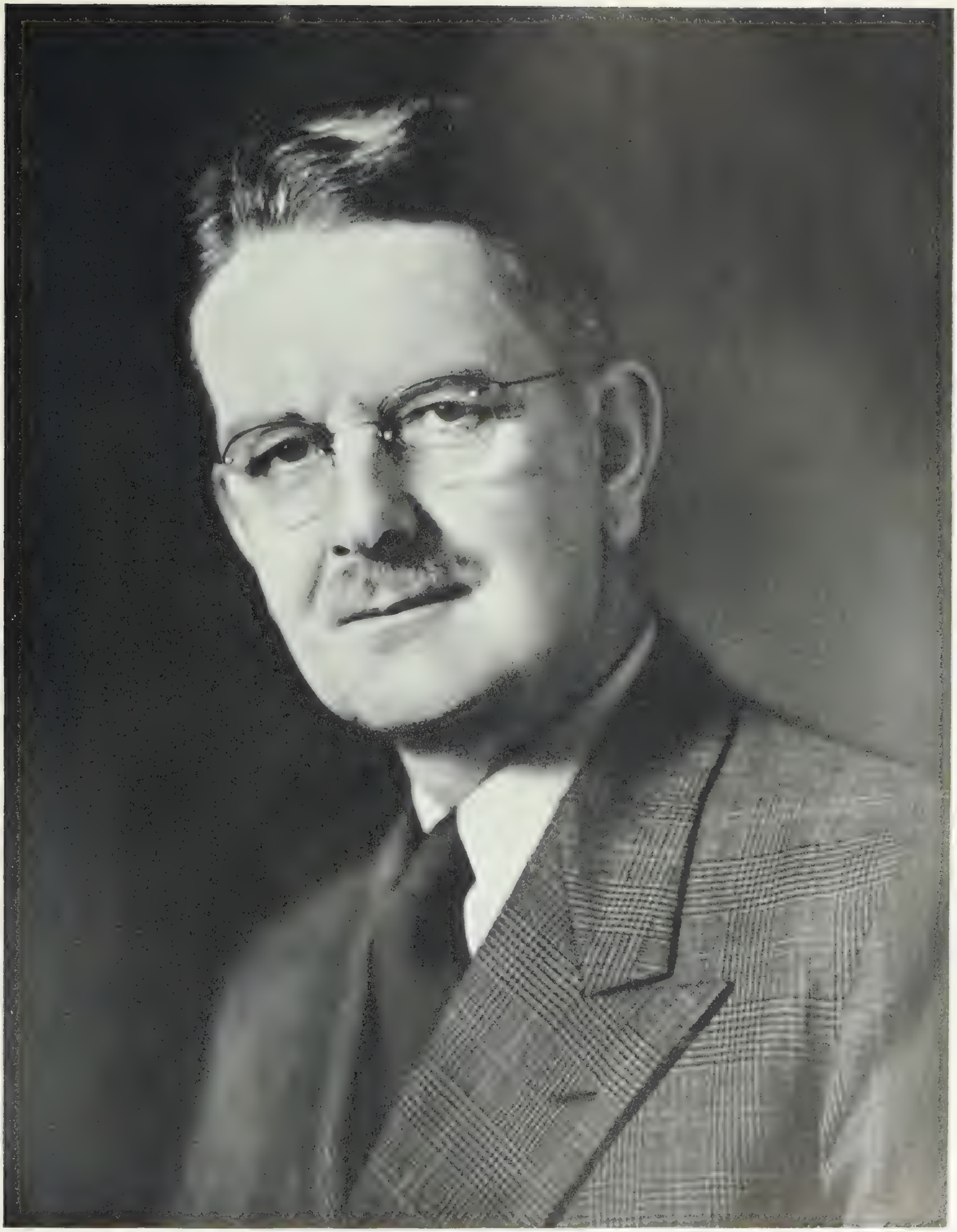

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Elected Leader of the Progressive Conservative Party in the Senate, 1945

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Governor General of Canada

CANADA: THE HISTORICAL BACKGROUND

By Col. C. P. STACEY
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ALTHOUGH there is good reason to believe that the territory which is now Canada was visited by Norsemen, perhaps even as early as the eleventh century, specific historical record in Canada begins with the voyages of John Cabot, who in 1497 probably touched Cape Breton Island as well as Newfoundland. Detailed exploration was begun by the Frenchman Jacques Cartier, who is now believed to have made his first voyage to Canadian waters in 1524 and spent the winter of 1535-36 at Quebec. French colonisation schemes in the St. Lawrence at this period came to nothing, and the first permanent French colony in Canada was established at Port Royal on the Annapolis Basin in Nova Scotia in 1605 by the Sieur de Monts and Samuel de Champlain. In 1608 Champlain founded Quebec and in succeeding years carried on extensive explorations in the interior.

The early colonisation of New France, as the colony was known, was carried on through the medium of successive monopolistic trading companies which were given fur-trading privileges in return for undertaking colonisation and missionary work among the natives. In these circumstances progress was slow, and as late as 1641 the population of New France totalled only 240. Quebec was captured by the English in 1629, but returned to France three years later. In 1663, when the French Crown itself assumed control of the colony and appointed the first royal governor, there were still only 2,500 people in the country. A more vigorous colonisation policy was now undertaken.

Able administrators, notable among whom were the Intendant Jean Talon (1665-72) and the Governor Count Frontenac (1672-82 and 1689-98) addressed themselves to Canada's problems. Adventurers like Robert Cavalier de la Salle (d. 1687) explored the interior of the continent and developed and organised the fur trade, and valiant missionaries, following in the footsteps of the Jesuit martyrs who had perished when the Iroquois destroyed the Huron villages around Georgian Bay in 1648-49, carried the gospel to the Indians of the west. Nevertheless, the colony still grew very slowly by comparison with the group of English colonies to the south; and one element in retarding it was certainly the insistence of the French authorities that all intending colonists should be orthodox in religion and politics.

After 1670 the French had to deal with English rivalry in the north as well as the south, for in that year the Hudson's Bay Company was chartered by Charles II and began competing with them for the fur trade. In the colonial campaigns of three successive Anglo-French wars (1689-97, 1702-13, and 1740-48) New France gave a good account of herself despite the heavy odds against her. She had the military advantages of unity, effective leadership, the presence of some regular troops, and an authoritarian government; for the representative institutions which were familiar in the English colonies were unknown in those of France. French defeats in Europe, however, resulted in the surrender of the French settlements in Acadia (Nova Scotia) and Newfoundland at the Treaty of Utrecht (1713), France retaining Prince Edward Island (Ile St. Jean) and Cape Breton Island (Ile Royale).

The final crisis began in 1755, when open war began in the Ohio Valley a year before the Seven Years' War broke out in Europe. Britain now sent large forces to America and, after initial French successes, the tide of war turned. In 1758 Louisbourg, the French fortress in Cape Breton Island, was taken; and next year saw the capture of Quebec. In the Battle of the Plains of Abraham, which sealed the fate of the city and the colony, both the British commander Wolfe and his French antagonist Montcalm met death. New France capitulated in 1760, and by the Treaty of Paris of 1763 it was formally ceded to Great Britain. Yet although the British flag now flew over Canada, French culture, the French tongue and the Roman Catholic faith were too well rooted to be eradicated from the country, and today they are still predominant in the lower St. Lawrence valley. The 60,000 Frenchmen who lived in Canada at the time of the British conquest are the ancestors of some 5,000,000 French Canadians in North America in the twentieth century. The Province of Quebec is their stronghold, but they are also numerous in other Candaian provinces and in the New England states.

The Beginnings of British Canada

In Novia Scotia, where Halifax had been founded in 1749 and an English-speaking population was growing up, an elective assembly was established in 1758; but in Canada the government continued to be administered on autocratic lines, after the conquest, by a succession of British governors who nevertheless were sympathetic to the French population and their desire to retain their language, religion and customs. There was no demand from the French for representative institutions. In 1774 the British Parliament passed the Quebec Act, which provided for continuance of non-representative government and at the same time sanctioned the use of French civil law, granted full freedom for the exercise of the Roman Catholic religion, and extended the boundaries of Canada south to the Ohio and west to the Mississippi. This act, so conciliatory from the French-Canadian viewpoint, was objectionable from that of the English colonies and was one factor in bringing on the conflict which soon broke out between them and the mother country.

In 1775 the forces of the Continental Congress invaded Canada; but few Canadians joined them, and although they occupied the greater part of the colony the city of Quebec was successfully held against them. In the spring of 1776 the appearance of a British fleet and army in the St. Lawrence resulted in their withdrawal. Canada was not again seriously threatened in this war. In 1783 the

Treaty of Versailles, which recognised the independence of the United States of America, set up a boundary between them and Canada which gave the Americans much more territory than they had been able to occupy during the operations, and which was prolific of later disputes. The most important consequence of the war for the provinces which remained British was the arrival of nearly 40,000 American Loyalists. The majority went to Novia Scotia and settled in the area which was organised in 1784 as the separate province of New Brunswick. A smaller number went to Canada, settling along the Upper St. Lawrence and on Lake Ontario; in 1791 this region was separated from the older part of the colony and became the province of Upper Canada (now Ontario). A result of the Loyalist migration was a further development of representative institutions; under the Canada or Constitutional Act of 1791 elective assemblies were set up in both Lower and Upper Canada.

The "War of 1812" with the United States was a by-product of the Napoleonic Wars, deriving partly from British interference with American neutral shipping and partly from the ambitions of American western expansionists who resented the continued presence of the British flag in North America and the manner in which the British authorities maintained relations with Indian tribes within the United States. In three campaigns, however, the Americans failed to make any extensive territorial gains in the face of the effective defence offered by British and Canadian troops, and the Treaty of Ghent (1814) merely registered a reversion to the *status quo*. The province of Upper Canada had suffered heavily, but the setback to its progress was merely temporary. The war's chief results in Canada were to strengthen the colony's bonds to the mother country, and to give it the small beginnings of a national spirit.

After the return of peace, serious political difficulties set in. The old colonial system which had broken down in the Thirteen Colonies in 1776 was now breaking down in Canada. In every province there were clashes between the appointed governor and his nominated advisers on one side, and the elected assembly on the other. In Lower Canada the conflict was embittered by growing antagonism between French and English, in Upper Canada by the arrogance of a governing clique known as the "Family Compact." In both provinces there were rebellions in 1837, led respectively by Louis-Joseph Papineau and William Lyon Mackenzie. These movements, while insignificant in themselves, called attention to the peril of the situation and led to the mission of the Earl of Durham, who arrived in Canada in 1838 as Governor General and High Commissioner. He remained in the colony only five months. In 1839 his famous "Report on the Affairs of British North America" was laid before Parliament.

Durham's basic recommendation—the introduction in Canada of responsible government of the British type, with a colonial ministry answerable to the legislature—was not at once acceptable to the British government. Although, fortunately for Canada, his other recommendation—that measures be taken to extirpate French-Canadian nationality—was never really acted upon, one of the steps advised by him with this policy in view was taken in 1840-41 when the two Canadas were re-united. Only in 1848, after further serious political difficulties, was responsible government conceded—first in Nova Scotia, where the agitation for self-government had been skillfully directed by Joseph Howe, soon afterwards in Canada. It was consolidated in the latter colony during the governorship of Lord Elgin (1847-54), the first responsible ministry being headed by Robert Baldwin and Louis Lafontaine. Almost simultaneously with responsible government the colonies of British North America received the right to regulate their own trade policies.

Relations with the United States continued to cause periodical crises. Two serious boundary disputes were however disposed of during this period without resort to arms. In the east the boundary with the state of Maine was settled by a treaty negotiated by Lord Ashburton (1842) in a manner which, while unsatisfactory to Canada, probably constituted the best bargain obtainable in the unfavourable conditions created by the treaty of 1783. In the west the Oregon Territory was partitioned by another treaty (1846) which fixed the boundary at the 49th parallel for most of its length but left Britain the whole of Vancouver Island. A period of free and friendly trading relations between British North America and the United States was inaugurated in 1854 by the negotiation of a Reciprocity Treaty providing for free trade in natural products. This treaty was abrogated by the United States in 1866.

The Coming of Confederation

The union of the Canadas did not work well; racial tensions continued to make government difficult, and by the early 1860's the country was faced with what seemed an insuperable deadlock of groups and parties. At the same time the Civil War in the United States (1861-65) produced serious difficulties between Britain and the United States, and an attack upon Canada by the latter country at the end of the war seemed possible. This situation moved colonial statesmen to attempt to effect a political union of the several colonies of British North America, a project which had been theoretically discussed in Durham's time and even before. At the Quebec Conference (1864) a federal scheme was drafted which was enacted into law by the British parliament as the British North America Act, 1867. On July 1, 1867, the Dominion of Canada was inaugurated, with Sir John A. Macdonald, who had played a dominant part in the achievement of federation, as its first prime minister. The Dominion consisted at this time of only four provinces: Ontario (formerly Upper Canada), Quebec (formerly Lower Canada), Nova Scotia and New Brunswick. Apart from its federal nature, the Dominion's government was framed on British lines, with an elected House of Commons and an appointed upper house termed the Senate. The continuance of cabinet government of the British type was assumed. In distributing powers between the central government and those of the provinces, the framers of the British North America Act sought to give all possible strength to the former—an intention which has been largely frustrated, in more recent times, by a succession of decisions of the Judicial Committee of the Privy Council.

A few years sufficed to extend the new Dominion to the Pacific. In 1869 the territorial rights of the Hudson's Bay Company were purchased, and the next year, after delay caused by disorders arising out of the anxieties of the half-breed population of Red River Settlement, that area was admitted to the Dominion as a full-fledged province under the name of Manitoba. In 1871 the distant colony of British Columbia on the Pacific (whose development had been hastened by the discovery of coal on Vancouver Island in 1849 and of gold on the mainland in 1858) joined similarly, on condition that a railway be completed to that coast within ten years. The intervening North-West Territories were made secure by the organisation of the

North-West Mounted Police (1873-74). In 1873 Prince Edward Island became the seventh province. Newfoundland declined to join. The eastern provinces were bound together by the completion in 1876 of the inter-colonial Railway, providing complete rail communication between Halifax and Quebec.

A scandal arising from contributions to party funds by an individual interested in the grant of a charter for the Pacific Railway led to the fall of Macdonald's Conservative ministry in 1873. The Liberal government of Alexander Mackenzie which succeeded made no effective arrangements to build the line. Macdonald returned to power in 1878 and in addition to introducing the " National Policy " of a protective tariff he adopted a more effective railway policy. The Canadian Pacific Railway was completed to Vancouver in 1885, following an all-Canadian route north of Lake Superior and overcoming the tremendous barrier of pre-cambrian rocks (known as the " Canadian Shield ") which interposed between Eastern Canada and Manitoba. The C.P.R.'s main line cost about $150,000,000. The first function of the railway was to carry the troops who suppressed the North-West Rebellion of 1885, a movement of halfbreeds and Indians which represented the last reaction of the primitive cultures of the prairie country against the advance of settlement. The execution of Louis Riel, the French-Canadian halfbreed who had led both this rebellion and the movement of 1869-70 at Red River, occasioned a serious rift in sentiment between the French and English sections of the country. Although Macdonald's hold on the province of Quebec was shaken, he won the elections of 1887 and 1891 and remained in power.

The Era of Sir Wilfrid Laurier

Macdonald, his task of nation-building done, died in 1891. The Conservative party remained in office until 1896, when it gave place to the Liberals led by Mr. (later Sir) Wilfrid Laurier. The advent of the new government was closely followed by the onset of the first period of genuine prosperity the Dominion had seen. With no more free land available in the United States, the tide of immigration turned towards Canada, and the settlement of the western prairies began in earnest. In 1905 two new provinces, Alberta and Saskatchewan, were organised out of the North-West Territories. This era of settlement and prosperity produced a new period of railway-building and the ultimate completion of two more trans-continental lines. The population of Canada increased from 5,371,315 in 1901 to 7,206,643 in 1911.

Laurier had to deal with difficult problems in external affairs. The adverse settlement (1903) of the Alaska Boundary controversy with the United States left bitterness behind it. During the same period Sir Wilfrid resisted the centralising tendencies of the imperial policy of Joseph Chamberlain (Colonial Secretary 1895-1903), and was the spokesman of colonial autonomy in a succession of Colonial Conferences. It was Laurier, however, who, in the face of formidable opposition in his own province of Quebec, sent Canadian troops to fight in the South African War (1899-1902). Under his administration, too, the British Preferential Tariff was introduced (1898).

External problems led to Laurier's fall. An agreement with the United States for wide reciprocity in trade occasioned much opposition, prompted partly by agitation by the special interests that had flourished behind the tariff wall, partly by genuine concern lest economic concessions should open the way for political penetration. Laurier was also embarrassed by the " naval question ": his policy of building a Canadian fleet was attacked both by Conservative " imperialists " who preferred a contribution to the Royal Navy and by Quebec " nationalists " who wanted no naval effort of any sort. The Conservatives won the general election of 1911 and Mr. (later Sir) Robert Borden became Prime Minister. Borden's bill providing three dreadnoughts for the Royal Navy was rejected by the Liberal majority surviving in the Senate; he did not choose to appeal to the country for a specific mandate on this issue, and in consequence nothing effective was done before 1914.

The First World War and After

In 1914 Canada followed the mother country into the war unitedly and light-heartedly, with little understanding of the nature of the ordeal that lay ahead. The 1st Canadian Division crossed the Atlantic that autumn and was in action on the Western Front early in 1915; a Canadian Corps was formed the same year and in 1916 reached its full strength of four divisions. From April 1915, when the 1st Division stood up to the first German gas attack in the Second battle of Ypres, the Canadian Expeditionary Force played an eminent and costly part in France and Flanders. The Corps particularly distinguished itself in the Battle of the Somme in 1916, in the capture of Vimy Ridge and later the Passchendaele Ridge in 1917, and in 1918 in the great victory of Amiens and the subsequent advance that ended in the Armistice. Although Canada had no air force of her own in this war, some 24,000 Canadians served in the imperial flying services. The Canadian naval forces employed nearly 10,000 more, chiefly in the Atlantic Coast patrol. All told, some 628,000 Canadians served, some 425,000 went overseas and some 60,000 gave their lives.

Until 1917 recruiting was purely by voluntary methods. In that year the Military Service Act instituted conscription. The measure was particularly unpopular in the French-Canadian community, and in the election of December 1917 Sir Robert Borden's new Union Government of Conservatives and conscriptionist Liberals, while winning an overwhelming victory in the Dominion as a whole, obtained only three seats in Quebec. The war had placed a very considerable strain upon the unity of Canada.

An important and novel feature of the war was the Dominion's industrial contribution. The chief items manufactured were 66,000,000 shells, nearly 3,000 aircraft and about 90 merchant ships. Exports of manufactured goods from Canada to Britain rose from $8,500,000 in 1913-14 to $339,000,000 in 1917-18; to all countries, from $67,000,000 in the former year to $660,000,000 in the latter. The war thus tremendously accelerated the industrialisation of Canada, and the ground gained was never lost.

In common with the other Dominions, Canada found her international status vastly raised by the war. She signed the Peace Treaties and joined the League of Nations as a nation in her own right. In 1920 she established the principle of independent diplomatic representation in Washington, though she did not actually open a legation there until 1926. Canadian representatives were subsequently sent to other foreign capitals. The Imperial Conference of 1926 defined the status of Great Britain and the Dominions, laying down the principle that no partner in the Commonwealth was subordinate to any other in either domestic or external affairs; and in 1931 the Statute of Westminster removed the formal legal disabilities under which the Dominion parliaments still laboured, leaving them co-equal with the parliament of the United Kingdom. (At Canada's request, however, the power to amend the British North America Act was still reserved exclusively to the British parliament).

At the end of 1921 a general election brought the Liberals back to power under a new leader, William Lyon Mackenzie King (grandson of the rebel of 1837). Mr. King remained prime minister throughout the period between the First and Second World Wars, except for a few months in 1926 and the five years 1930-35, when the long world depression first returned the Conservatives to office under R. B. (later Viscount) Bennett, and then unseated them again. In general, economic problems dominated the period. Until 1929 the country was engrossed in money-making, and particularly in the exploitation of the mineral wealth of the Canadian Shield, which had begun to become fully apparent just before the war. After the boom broke, the restoration of prosperity was the primary interest. The Bennett administration attempted to compass this by a high-tariff policy combined with a degree of encouragement to inter-imperial trade (Ottawa Agreements, 1932); after the return of Mr. King in 1935, however, more was done to increase the general volume of international trade, a reciprocal trade agreement was signed with the United States and the Ottawa agreement with the United Kingdom was somewhat liberalised. The problem of the division of powers and revenues between the Dominion and the provinces became increasingly pressing but no solution was found for it. In external affairs, throughout the inter-war period, Canadian policy was strongly tinged with isolationism; the country pursued, in general, a policy of "no commitments" either to the Commonwealth or the League. As for national defence, no one took much interest in it until 1936, when a very modest re-armament programme was undertaken.

The Second World War

In many respects, Canada's approach to the Second World War paralleled that of the United Kingdom. In both countries the public shrank from another blood-bath; in both, the policy of appeasement long had a powerful appeal; in both, the national defences were too long neglected; and in both the steady progress of Hitler's programme of agression finally roused a reluctant nation to the realisation that only armed resistance would halt it. During these years there was much controversy over the attitude which Canada would and should take when and if the final crisis came, and much apprehension over its effect upon the unity of the Dominion. By March 1939, however, both major political parties had arrived at the same formula: the country must fight, but with one important reservation stemming from the experience of 1917-18—conscription for overseas service must be avoided. When fighting began in Poland, the Canadian parliament was called; and on 10 September 1939 it approved without a division, Mr. King's recommendation that the Dominion should take its stand with Britain and France. With rather unexpected unanimity, Canada thus declared war on Germany after one week's official neutrality. For more than two years thereafter she was the only American nation actively engaged in the struggle.

The 1st Canadian Division arrived in Britain in December 1939; a Canadian Corps was formed overseas a year later, and in 1942 the First Canadian Army. The troops were long denied action; a force which was made ready to go to Norway in April 1940 was never dispatched, a brigade that reached France in the following June was withdrawn without meeting the enemy, and the Germans' failure to attempt the invasion of England disappointed the Canadians who were standing guard there. The first troops to go into battle were two battalions from Canada engaged in the defence of Hong Kong in 1941, and two brigades which fought in the great raid on Dieppe the following year. In July 1943, however, the 1st Division took part in the assault on Sicily; later in the year more Canadian troops were sent to the Mediterranean theatre, and the 1st Canadian Corps fought in Italy as part of the Eight Army during 1944, taking a leading part in the operations that broke the Adolf Hitler and Gothic Lines. In February 1945 it was transferred to North-West Europe. On D Day in June 1944 the 3rd Division landed in Normandy; the 2nd Canadian Corps and the First Canadian Army came into action in succession, and the Army, always on the extreme left of the Allied line and forming part of the 21st Army Group had hard fighting throughout the campaign which ended with the German surrender in May 1945. It was particularly heavily engaged in the battles around Falaise, in the clearing of the Scheldt Estuary in the autumn of 1944, and in the Rhineland in the following February and March.

The Royal Canadian Air Force made a great contribution. It organised and administered in Canada the British Commonwealth Air Training Plan, which produced over 131,000 trained aircrews for Canada, the United Kingdom, Australia and New Zealand. A total of 48 R.C.A.F. squadrons served in overseas theatres, and Canada provided a complete Bomber Group for the R.A.F. Bomber Command. In addition, many thousands of R.C.A.F. men and women served with the R.A.F. as individuals. As for the Royal Canadian Navy, it expanded from 15 vessels in commission at the outbreak of war to over 400 in April 1945. It played an important part in the Battle of the Atlantic, which was its main field of action, but Canadian ships and sailors served in every sea and ocean. Between the three services, some 1,086,000 Canadians served during the war. Fatal casualties numbered about 41,000.

The rejection of conscription for overseas service long remained in effect. In 1940 it was written into the National Resources Mobilisation Act, passed after Dunkirk, which authorised conscription for home defence only. In 1942 a plebiscite released the government from its commitments in this respect (Quebec being the only province to vote against release), but it held its new powers in reserve until the late autumn of 1944, when shortage of infantry reinforcements led to a decision to send compulsorily-enlisted men overseas. Of some 368,000 soldiers who served in the United Kingdom and Europe, fewer than 13,000 were conscripts.

In this war as in the earlier one, Canada made a great industrial effort. In the early months the British government did not give much encouragement to Canadian production, but after Dunkirk orders poured in. The Dominion's gross production of manufactured goods, which had been somewhat more than $3,000,000,000 in 1938, rose above $9,000,000,000 in 1944. The effort was both far larger and much more diversified than in 1914-18. Among the items produced were 91,000 gun barrels and forgings; 794,000 motor vehicles; 186,000 Bren guns; 16,000 aircraft; 6,500 tanks and self-propelled guns; and 391 cargo vessels.

Other economic aspects can be only briefly mentioned. A remarkable feature of Canadian war finance was the extent to which the expense of the war effort was met from revenue; of the government's total expenditure for the six fiscal years 1939-40 to 1944-45 inclusive ($18,771,000), no less than 56 per cent. was thus defrayed. The rest was met by internal borrowing. The Dominion's net debt increased from $3,006,000,000 in 1936 to $13,421,000,000 in 1946. A considerable item in the wartime expenditure was " mutual aid " for Allied countries and particularly for the United Kingdom. This was Canada's equivalent of the United States " lend-lease " system. From 1943 through 1945 it amounted to about $2,500,000,000. Reference must be made to one aspect of the wartime domestic economy: the acknowledged success of the system of price controls administered by the Wartime Prices and Trade Board.

The war brought Canada much closer to her American neighbour. This *rapprochement* was visible even before 1939, when the Dominion responded warmly to the friendly attitude of President Franklin D. Roosevelt. In the crisis of the summer of 1940, Mr. Roosevelt and Mr. King met at Ogdensburg, New York, and agreed to set up a Permanent Joint Board on Defence " to consider in the broad sense the defence of the north half of the Western Hemisphere." This Board still exists, and provides effective means for discussion by the two countries of their mutual military problems. On 12 February 1947 it was announced that informal and limited military collaboration would continue.

Perhaps the most striking development of the postwar period has been the abandonment of the isolationism so evident before 1939. Canada since 1945 has maintained considerably larger armed forces than ever before in time of peace, and has shown a much greater readiness to accept the idea of commitments. On 29 April 1948, Mr. Louis St. Laurent, the Secretary of State for External Affairs, declared in the House of Commons that the best guarantee for peace was " the organisation of collective defence." This position was not seriously challenged by any party in Parliament, and it appeared that Canada was prepared to adhere to any system organised among the western democracies to provide against the growing threat of aggression by Soviet Russia.

In the general election of 1945, the Liberals were again returned, though with a reduced majority. At the time of writing (May 1948) Mr. King remains prime minister, but his impending retirement has been announced. The Progressive Conservative party, led by Mr. John Bracken, is the official opposition; and the third largest group in Parliament is the socialist Co-Operative Commonwealth Federation (C.C.F.), established in 1932.

NOTABLE HISTORICAL EVENTS 1497–1948

This chronology is in the main a greatly shortened version of that included annually in the *Canada Year Book*, which has been drawn upon by permission.

1497 June 24, Eastern coast of North America discovered by John Cabot.
1498 Cabot discovered Hudson Strait.
1501 Gaspar Corte Real visited Newfoundland and Labrador.
1524 Jacques Cartier's (probable) first voyage. Verrazano explored the coast of Nova Scotia.
1534 July 24, Cartier, on his second voyage, erected a cross at Gaspe, claiming the land for the King of France.
1535 Cartier's third voyage. He ascended the St. Lawrence to Stadacona (Quebec) (Sept. 14), Hochelaga (Montreal) (Oct. 2).
1541 Cartier's fourth voyage.
1542–43 De Roberval and his party wintered at Cap Rouge, and were rescued by Cartier on his fifth voyage.
1557 Sept. 1. Death of Cartier at St. Malo, France.
1592 Straits of Juan de Fuca discovered by de Fuca.
1603 June 22, Champlain's first landing in Canada, at Quebec.
1604 De Monts settled colony on island in the St. Croix River.
1605 De Monts colony moved to Port Royal (Annapolis, N.S.).
1608 Champlain's second visit. July 3, Founding of Quebec.
1609 July, Champlain discovered Lake Champlain.
1610–11 Hudson explored Hudson Bay and James Bay.
1611 Brule ascended the Ottawa River.
1613 June, Champlain ascended the Ottawa.
1615 Champlain explored Lakes Nipissing, Huron, and Ontario (discovered by Brule and Le Caron).
1621 Nova Scotia granted to Sir William Alexander by King James I.
1623 First British settlement of Nova Scotia.
1627 New France and Acadia granted to the Company of 100 Associaates.
1628 Port Royal taken by Sir David Kirke.
1629 July 20, Quebec taken by Sir David Kirke.
1632 Mar. 29, Canada and Acadia restored to France by the Treaty of St. Germain-en-Laye.
1633 May 23, Champlain made first Governor of New France.
1634–35 Exploration of the Great Lakes by Nicolet.
1635 Dec. 25, Death of Champlain at Quebec. Founding of the first college at Quebec.
1642 May 17, Founding of Ville-Marie (Montreal) by Maisonneuve.
1648 Mar 5, Council of New France created.
1649 Mar. 16-17, Murder of Fathers Brebeuf and Lalement by Indians and massacre of the Hurons.
1654 Aug. Acadia taken by an expedition from New England.
1659 June 16, Francois de Laval arrived in Canada as Vicar-Apostolic.
1660 May 21, Dollard des Ormeaux and sixteen companions killed by Iroquois at the Long Sault, Ottawa River.
1663 Company of 100 Associates dissolved. April, Sovereign Council of New France established.
1664 May. Company of the West Indies founded.
1665 Mar. 23, Talon appointed Intendant.
1666 Feb.-Mar. First Census: population of New France, 3,215.

1667. July 21, Acadia restored to France by the Treaty of Breda.

1670 May 2, Charter of the Hudson's Bay Company granted.

1672 Apr. 6, Comte de Frontenac appointed Governor.

1673 June 13, Cataraqui (Kingston) founded.

1674 Oct. 1, Laval became first Bishop of Quebec.

1682 Frontenac recalled.

1686 Population of New France, 12,566; of Acadia, 894.

1689 June 7, Frontenac reappointed Governor. Aug. 5, Massacre by Indians at Lachine.

1690 May 21, Sir William Phips captured Port Royal but was repulsed in an attack on Quebec (Oct. 16-21).

1697 Sept. 20, By the Treaty of Ryswick, places taken during the war were mutually restored. D'Iberville defeated the Hudson's Bay Company's ships on Hudson Bay.

1698 Nov. 28, Death of Frontenac.

1701 La Motte Cadillac built a fort at Detroit.

1703 June 16, Sovereign Council of Canada became Superior Council and membership increased from 7 to 12.

1708 Death of Laval.

1710 Oct. 13, Port Royal taken by Nicholson.

1711 Sept. 1, Part of the British fleet, proceeding against Quebec, wrecked off the Seven Islands.

1713 Apr. 11, Treaty of Utrecht; Hudson Bay, Acadia, and Newfoundland ceded to Great Britain. Aug. Louisbourg founded by the French.

1718 Foundation of New Orleans, carrying out French plan to control the Mississippi and the St. Lawrence.

1720 Apr. 25, Governor and Council of Nova Scotia appointed.

1733 Discovery of Lake Winnipeg by La Verendrye.

1745 June 17, Taking of Louisbourg by Pepperell and Warren.

1748 Oct. 18, Treaty of Aix-la-Chapelle. Louisbourg restored to France in exchange for Madras, India.

1749 June 21, Founding of Halifax-British immigrants brought to Nova Scotia by Governor Cornwallis.

1752 May 25, Issue of the Halifax Gazette, first newspaper in Canada.

1754 Census population of New France, 55,009.

1755 June 16, Surrender of Fort Beausejour on the Isthmus of Chignecto to the British. Sept. 10. Expulsion of the Acadians from Nova Scotia.

1756 Seven Years' War between Great Britain and France began.

1758 July 26, Final capture of Louisbourg by the British. Oct. 7. First meeting of the Legislature of Nova Scotia.

1759 July 25, Fort Niagara taken by the British. July 26, Beginning of the siege of Quebec. July 31, French victory at Beauport Flats. Sept. 13, Defeat of the French on the Plains of Abraham. Sept. 18, Surrender of Quebec.

1760 Apr. 28, Victory of the French under Lewis at Ste. Foy. Sept. 8, Surrender of Montreal. Military rule set up in Canada.

1762 First British settlement in New Brunswick.

1763 Feb. 10, Treaty of Paris, by which Canada and its dependencies were ceded to the British. May. Rising of Indians under Pontiac. Oct. 7, Civil government proclaimed. Cape Breton and Ile St. Jean (P.E.I.) annexed to Nova Scotia: Labrador, Anticosti, and Magdalen Islands to Newfoundland. Nov. 21, General James Murray appointed Governor-in-Chief.

1764 Aug. 13, Civil government established. Population of Nova Scotia, 12,998.

1766 July 24, Peace made with Pontiac at Oswego.

1768 Charlottetown, Ile St. Jean (P.E.I.), founded. Apr. 12, Sir Guy Carleton (Lord Dorchester) Governor-in-Chief.

1769 Ile St. Jean (P.E.I.) separated from Nova Scotia.

1770–72 Hearne's journey to the Coppermine and Slave Rivers and Great Slave Lake.

1774 June 22, The Quebec Act passed.

1775 May 1, The Quebec Act came into force. Outbreak of the American Revolution. Montgomery and Arnold invaded Canada. Nov. 12, Montgomery took Montreal. Dec. 31, Montgomery defeated and killed in an attack on Quebec.

1776 Americans defeated and driven from Canada by Carleton.

1777 Sept. 18, General Frederick Haldimand Governor-in-Chief.

1778 Capt. James Cook explored Nootka Sound and claimed the northwest coast of America for Great Britain.

1783 Sept. 3, Treaty of Versailles, recognising the independence of the United States. Organisation of the Northwest Company at Montreal. Kingston (Ont.) and Saint John (N.B.) founded by the United Empire Loyalists.

1786 Apr. 22, Lord Dorchester again Governor-in-Chief. Oct. 23, Government of New Brunswick moved from Saint John to Fredericton.

1790 Spain surrendered her exclusive rights on the Pacific coast.

1791 The Constitutional Act. The Province of Quebec divided into Upper and Lower Canada, each with a lieutenant-governor and legislature. The Act went into force Dec. 26. Sept. 12, Colonel J. G. Simcoe, first Lieutenant-Governor of Upper Canada.

1792 Sept. 17, First Legislature of Upper Canada opened at Newark (Niagara). Dec. 17, First Legislature of Lower Canada opened at Quebec. Vancouver Island circumnavigated by Vancouver.

1793 July 9, Importation of slaves into Upper Canada forbidden. Rocky Mountains crossed by (Sir) Alexander Mackenzie, who reached the Pacific Ocean. York (Toronto) founded by Simcoe.

1794 Nov. 19, Jay's Treaty between Great Britain and the United States.

1795 Pacific coast of Canada ceded to the British by the Spaniards.

1796 Government of Upper Canada moved from Niagara to York (Toronto).

1798 St. John's Island (Ile St. Jean, population 4,372) renamed Prince Edward Island.

1800 The Rocky Mountains crossed by David Thompson.

1803 Settlers sent by Lord Selkirk to Prince Edward Island.

1806 Nov. 22, Issue of Le Canadien —first wholly French newspaper. Population — Upper Canada, 70,718; Lower Canada, 250,000; New Brunswick, 35,000; Nova Scotia, 65,000; Prince Edward Island, 9,676.

1807 Simon Fraser explored the Fraser River.

1809 Nov. 4, First Canadian steamer ran from Montreal to Quebec.

1811 Lord Selkirk's Red River Settlement founded on land granted by Hudson's Bay Company.

1812 June 18, Declaration of war by the United States. July 12, Americans under Hull crossed the Detroit River. Aug. 16, Detroit surrendered by Hull to Brock. Oct. 13, Defeat of the Americans at Queenston Heights and death of General Brock.

1813 Apr. 27, York (Toronto) taken and partly burned by the Americans. June 5, British victory at Stoney Creek. Sept. 10, Commodore Perry destroyed the British flotilla on Lake Erie. Oct. 5, Americans under Harrison defeated the British at Moraviantown. Tecumseh killed. Oct. 26, Victory of French-Canadian troops under de Salaberry at Chateauguay. Nov. 11, Defeat of the Americans at Crysler's Farm. British stormed Fort Niagara and burned Buffalo.

1814 May 6, Capture of Oswego by the British. July 5, American victory at Chippawa. July 25, British victory at Lundy's Lane. July, British from Nova Scotia invaded and occupied northern Maine. Sept. 11, British defeat at Plattsburg on Lake Champlain. Dec. 24, Treaty of Ghent ended the war.

1815 July 3, Treaty of London regulated trade with the United States. The Red River Settlement destroyed by the Northwest Company but restored by Governor Semple.

1816 June 19, Governor Semple killed. The Red River Settlement again destroyed.

1817 July 18, First Treaty with the Northwest Indians. Lord Selkirk restored the Red River settlement. Population of Nova Scotia, 81,351. Rush-Bagot Convention with the United States, limiting naval armament on the Great Lakes, signed.

1818 Oct. 20, Convention at London regulating North American fisheries.

1819 –22 Franklin's overland Arctic expedition.

1820 Oct. 16, Cape Breton re-annexed to Nova Scotia.

1821 Mar. 26, The Northwest Company absorbed by the Hudson's Bay Company.

1822 Population of Lower Canada, 427,465.

1824 Population of Upper Canada, 150,066; of New Brunswick, 74,176.

1826 Founding of Bytown (Ottawa).

1827 Sept. 29, Convention of London relating to the territory west of the Rocky Mountains.

1829 Nov. 27, First Welland Canal opened, connecting Lakes Erie and Ontario.

1832 May 30, Opening of the Rideau Canal, connecting Ottawa River with Lake Ontario.

1833 Aug. 18, The steamer Royal William, built at Quebec, crossed the Atlantic from Pictou, N.S., to England.

1834 Feb. 21, The Ninety-Two Resolutions on public grievances passed by the Assembly of Lower Canada.

1836 July 21, Opening of the first railway in Canada from Laprairie to St. John's, Que.

1837 Rebellion in Lower Canada (Papineau) and Upper Canada (W. L. Mackenzie).

1838 Feb. 10, Constitution of Lower Canada suspended and Special Council created. Mar. 30, The Earl of Durham, Governor-in-Chief. Apr. 27, Martial Law revoked. June 28, Amnesty to political prisoners proclaimed. Nov. 1, Lord Durham, censured by British Parliament, resigned.

1839 Feb. 11, Lord Durham's report submitted to Parliament. Oct. 19, Charles Poulett Thomson (Lord Sydenham) arrived in Canada as Governor-in-Chief.

1840 July 23, Passing of the Act of Union. First ship of the Cunard Line arrived at Halifax.

1841 Feb. 10, Union of the two provinces of Upper and Lower Canada as the Province of Canada, with Kingston as capital. June 13, Meeting of the first United Parliament. Sept. 19, Death of Lord Sydenham. Population — Upper Canada, 455,688; Prince Edward Island, 47,042.

1842 Aug. 9, The Ashburton Treaty (Maine Boundary). Sept. 16, Baldwin-Lafontaine Administration.

1843 June 4, Victoria, B.C., founded.

1844 May 10, Seat of government moved from Kingston to Montreal. Population of Lower Canada, 697,084.

1845 Franklin started on his last Arctic expedition.

1846 June 15, Oregon Boundary Treaty.

1848 Mar. 11, Lafontaine-Baldwin Adminstration. St. Lawrence canals opened to navigation.

1849 Apr. 25, Signing of the Rebellion Losses Act; rioting in Montreal and burning of the Parliament Buildings. Nov. 14, Toronto made the capital. Vancouver Island granted to the Hudson's Bay Company.

1851 Responsible government granted to Prince Edward Island. Sept, 22, Quebec became the capital.

1852 Grand Trunk Railway chartered.

1853 Opening of Grand Trunk Railway from Montreal to Portland.

1854 June 5, Reciprocity Treaty with the United States. Seigneurial tenure in Lower Canada abolished. Secularisation of the clergy reserves.

1855 Oct. 20, Government moved to Toronto.

1856 The Legislative Council of Canada made elective. First meeting of the Legislature of Vancouver Island. Oct. 27, Opening of the Grand Trunk Railway from Montreal to Toronto.

1857 Dec. 31, Ottawa chosen by Queen Victoria as future capital of Canada.

1858 Feb., Discovery of gold in Fraser River Valley. July 1, Introduction of Canadian decimal currency. Aug. 20, Colony of British Columbia established. Control of Vancouver Island surrendered by the Hudson's Bay Company.

1859 Sept. 24, Government moved to Quebec.

1861 Outbreak of American Civil War. "Trent" crisis with United States. Population—Upper Canada, 1,396,091; Lower Canada, 1,111,586; New Brunswick, 252,047; Nova Scotia, 330,857; Prince Edward Island, 80,857.

1862 Defeat of Militia Bill. Fall of John A. Macdonald-Cartier government.

1864 Coalition Government in Canada (John A. Macdonald-George Brown). Conferences on confederation of British North America; Sept. 1, at Charlottetown; Oct. 10-29, at Quebec. Oct. 19, Raid of American Confederates from Canada on St. Albans, Vermont.

1865 Feb. 3, The Canadian Legislature resolved on an address to the Queen praying for union of the provinces of British North America. Oct. 20, Proclamation fixing the seat of government at Ottawa.

1866 Mar. 17, Termination of the Reciprocity Treaty by the United States. May 31, Raid of Fenians from the United States into Canada; after an action at Ridgeway (June 2) they retreated across the border (June 3), June 8. First meeting at Ottawa of the Canadian Legislature. Nov. 17, Proclamation of the union of Vancouver Island with British Columbia.

1867 Mar. 29, Royal Assent given to the British North America Act. July 1, The Act came into force; Union of the Province of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Viscount Monck, first Governor General; Sir John A. Macdonald, Prime Minister. First Dominion election.

1869 June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.

1870 May 12, Act to establish the Province of Manitoba. July 15, Northwest Territories transferred to the Dominion and Manitoba admitted into Confederation. Aug. 24, End of Red River Rebellion.

1871 Apr. 2, First Dominion Census (population 3,689,257). Apr. 14, Act establishing uniform currency in the Dominion. May 8, Treaty of Washington signed. July 20, British Columbia entered Confederation.

1872 Canadian Pacific Railway general charter passed by the Dominion Parliament authorising construction of a trans-continental line by a private company. Dominion election. Government sustained.

1873 May 23, Act establishing the North West Mounted Police. July 1, Prince Edward Island entered Confederation. " Pacific Scandal ": fall of Macdonald's Conservative government. Alexander Mackenzie (Liberal) Prime Minister.

1874 Jan. 22, Dominion election, won by Liberals.

1875 Apr. 8, The Northwest Territories Act established a Lieutenant-Governor and a Northwest Territories Council. June 15, Formation of the Presbyterian Church in Canada.

1876 June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax.

1877 Oct., First exportation of wheat from Manitoba to the United Kingdom.

1878 Sept. 17, Dominion election, won by Conservatives. Sir John A. Macdonald, Prime Minister.

1879 May 15, Adoption of a protective tariff (" The National Policy ").

1880 May 11, Sir A. T. Galt appointed first Canadian High Commissioner in London. Sept. 1, All British possessions in North America and adjacent islands (except Newfoundland and its dependencies), annexed to Canada by Imperial Order in Council of July 31, Oct. 21, Signing of the contract with the present Canadian Pacific Railway Co., for the completion of the Canadian Pacific Railway.

1881 Apr. 4, Second Dominion Census (population 4,324,810).

1882 June 20, Dominion election. Government sustained.

1883 Sept. 5, Formation of the Methodist Church in Canada.

1885 Mar. 26, Outbreak of Riel's second rebellion in the Northwest. Apr. 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. Nov. 7, Last spike of Canadian Pacific Railway main line driven at Craigellachie. Nov. 16, Execution of Riel.

1887 Inter-provincial Conference at Quebec. Feb. 22, Dominion election. Government sustained.

1888 Feb. 15, Signing of Fishery Treaty between United Kingdom and United States at Washington. Aug., Rejection of Fishery Treaty by United States Senate.

1890 Mar. 31, The Manitoba School Act abolished separate schools.

1891 Mar. 5, Dominion election. Government sustained. Apr. 5, Third Dominion Census (population 4,833,239). June 6, Death of Sir John A. Macdonald.

1892 Feb. 29, Washington Treaty, providing for arbitration of the Bering Sea Seal Fisheries question. July 22, Boundary Convention between Canada and United States.

1893 Apr. 4, First sitting of the Bering Sea Arbitration Court.

1894 June 28, Colonial Conference held at Ottawa.

1895 Sept. 10, Opening of new Sault Ste. Marie Canal.

1896 June 23, Dominion election, won by Liberals. Wilfrid Laurier, Prime Minister. Aug., Gold discovered in the Klondyke.

1897 Dec. 17, Award of the Bering Sea Arbitration Court.

1898 June 13, The Yukon District established as a separate Territory. Aug. 1, The British Preferential Tariff went into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States.

1899 Oct. 11, Beginning of the South African War. Oct. 29, First Canadian Contingent left Quebec for South Africa.

1900 Feb. 27, Battle of Paardeberg. Nov. 7, Dominion election. Government sustained.

1901 Apr. 1, Fourth Dominion Census (population 5,371,315).

1902 May 31, End of South African War; peace signed at Vereeniging.

1903 Oct. 20, Award of the Alaskan Boundary Commission.

1904 Feb. 1, Dominion Railway Commission established. Nov. 3, Dominion election. Government sustained.

1905 Sept. 1, Creation of the Provinces of Alberta and Saskatchewan.

1906 Roald Amundsen, in the schooner *Gjoa*, arrived at Nome, Alaska, on completion of the first traverse of the North-West Passage. Hydro-Electric Power Commission of Ontario formed. Oct. 8, Interprovincial Conference at Ottawa.

1908 Oct. 8, Dominion election. Government sustained.

1909 Jan. 11, Signing of International Boundary Waters Convention between Canada and United States : International Joint Commission set up.

1910 Sept. 7, North Atlantic Coast Fisheries Arbitration Award of The Hague Tribunal. New trade agreements made with Germany, Belgium, Holland and Italy.

1911 June 1, Fifth Dominion Census (population 7,206,643). Sept. 21, Dominion election, won by Conservatives. Robert Borden, Prime Minister.

1912 Mar. 29-Apr. 9, First Canada-West Indies Trade Conference held at Ottawa. May 15, Extension of the boundaries of Quebec, Ontario and Manitoba.

1914 Aug. 4, War with Germany; Aug. 12, with Austria-Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian Contingent landed at Plymouth, England.

1915 Feb., First Canadian Contingent landed in France and proceeded to Flanders. Apr. 22, Second Battle of Ypres. May 20-26, Battle of Festubert. June 15, Battle of Givenchy.

1916 Jan. 12, Order in Council authorising increase in number of Canadian troops to 500,000. Apr. 3-20, Battle of St. Eloi. June 1-3, Battle of Sanctuary Wood. July 1, Commencement of the Battle of the Somme.

1917 Feb. 12-May 15, Imperial Conference. Mar. 20-May 2, Meetings at London of Imperial War Cabinet. Mar. 21-Apr. 27, Imperial War Conference. Apr. 9, Capture of Vimy Ridge. June 9, Sir Arthur Currie appointed to command Canadian Corps. Aug. 15, Battle of Loos, capture of Hill 70. Aug. 29, Passing of Military Service Act. Parliamentary franchise extended to women. Oct. 12, Sir Robert Borden forms "Union" Government. Oct. 26-Nov. 10, Battle of Passchendaele. Dec. 6, Serious explosion at Halifax, N.S. Dec. 17, Dominion election. Government sustained.

1918 Mar. 21, Germans launched critical offensive on Western Front. June-July, Prime Minister and colleagues attended Imperial War Conference at London. July 18, Allies assumed successful offensive on Western Front. Aug. 8, Battle of Amiens. Sept. 2-4, Breaking of Drocourt-Queant line. Sept. 27-Oct. 1, Battle of Canal du Nord. Oct. 1-9, Capture of Cambrai. Oct. 25-Nov. 2, Capture of Valenciennes. Nov. 11, Capture of Mons. Germany surrendered and signed armistice.

1919 Feb. 17, Death of Sir Wilfrid Laurier. June 28, Signing at Versailles of Peace Treaty and Protocol. Dec. 20, Organisation of " Canadian National Railways " by Order in Council.

1920 Feb. 19, Shareholders ratified agreement for sale of the Grand Trunk Railway to the Dominion Government. May 31-June 18, Trade Conference at Ottawa between Dominion and West Indian Governments. Retirement of Sir Robert Borden; Arthur Meighen, Prime Minister.

1921 May 10, Preferential tariff arrangement with British West Indies became effective. June 1, Sixth Dominion Census (population 8,787,949). Dec. 6, Dominion election, won by Liberals. W. L. Mackenzie King, Prime Minister.

1925 June 10, Inauguration of the United Church of Canada (composed of former Methodist, Congregationalist, and majority of Presbyterian churches). Oct. 29, Dominion election; government fails to gain clear majority.

1926 June 29, Arthur Meighen, Prime Minister. Sept. 14, Dominion election, won by Liberals. W. L. Mackenzie King, Prime Minister. Nov. 26, Hon. C. Vincent Massey appointed Minister to the United States.

1927 Mar. 1, Labrador Boundary Award by the Privy Council defining the Newfoundland boundary in the Labrador Peninsula. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reached Ottawa. Sept., Canada elected as a non-permanent member of the Council of the League of Nations at Geneva. Nov., Dominion-Provincial Conference on the relations between the Dominion and the provinces.

1928 Apr. 25, Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceased to exist, leaving Quebec the only province with a bi-cameral legislature.

1929 Dec. 14, Transfer of natural resources to Manitoba and Alberta.

1930 Feb. 20, Transfer of natural resources to British Columbia. Mar. 20, Transfer of natural resources to Saskatchewan. July 28, Dominion election, won by Conservatives. R. B. Bennett, Prime Minister.

1931 June 1, Seventh Dominion Census (population 10,376,786). Dec. 12, Statute of Westminster establishing legislative equality of the Parliament of Canada with that of the United Kingdom became effective.

1932 July 21-Aug. 20, Imperial Economic Conference at Ottawa. Aug. 6, Official opening of the Welland Ship Canal.

1933 Jan. 17-19, Dominion-Provincial Conference.

1935 Mar. 11, Bank of Canada commenced business. Oct. 14, Dominion election, won by Liberals. W. L. Mackenzie King, Prime Minister. Nov., Trade Agreement with United States. Dec. 9, Dominion-Provincial Conference met at Ottawa.

1936 July 26, Unveiling of Vimy Memorial in France by H.M King Edward VIII.

1937 Nov. 29, Royal Commission on Dominion-Provincial relations met at Winnipeg.

1938 Sept., European crisis over Czechoslovakia. Nov. 17, New Trade Agreement between Canada and United States signed at Washington.

1939 Mar. 14, Occupation of Czechoslovakia by Germany. May 17-June 15, Visit of Their Majesties King George VI and Queen Elizabeth to Canada and the United States. Sept. 1, Poland invaded by Germany, Sept. 3, War with Germany declared by the United Kingdom and France. Sept. 10, Canada declared war upon Germany. Oct. 4, Disallowance of Alberta Limitations of Actions Act, which was re-enacted after a previous disallowance. Dec. 17, First Canadian troops landed in United Kingdom. British Commonwealth Air Training Plan signed at Ottawa by United Kingdom, Canada, New Zealand and Australia.

1940 Mar. 26, Dominion election, Government sustained. Apr. 25, Quebec women granted franchise in provincial elections and to qualify as candidates for the Legislature. May 16, Rowell-Sirois Report of Royal Commission on Dominion-Provincial Relations presented to the House of Commons. June 4, Dunkirk evacuation completed. June 11, Establishment of Canadian consular service announced. June 21, National Resources Mobilisation Act assented to. July 10, B.N.A. Act amended to empower Dominion to enact unemployment insurance legislation. July 29, Unemployment Insurance Bill passed by House of Commons. Aug. 17-18, Conference at Ogdensburg, N.Y., between the Prime Minister of Canada and the President of the United States; Permanent Joint Board on Defence created. Aug. 19-21, National Registration in Canada.

1941 Jan. 14-15, Dominion-Provincial Conference, called to consider findings of Royal Commission on Dominion-Provincial Relations, terminated owing to opposition of three provinces. Apr. 20, President Roosevelt and Prime Minister King announced agreement regarding the pooling of war materials. June 11, Eighth Dominion Census (population 11,506,655). June 30, Proclamation issued calling men 21 to 24 years of age for compulsory military training. Dec. 7, Japanese attack on Pearl Harbour. Canada declared state of war with Roumania, Hungary, Finland and Japan. Dec. 25, Surrender of Hong Kong.

1942 Jan. 5, Joint Board for United Kingdom, United States and Canada, established to purchase and allocate raw materials required for wartime production. July 3, Formation of Canadian joint naval, military and air staff at Washington. Aug. 19, Large-scale raid on Dieppe by force mainly composed of Canadian troops.

1943 July 10, British, Canadian and United States forces invaded Sicily. Aug. 10-24, Sixth Anglo-American War Conference at Quebec city, attended by Prime Minister Churchill, President Roosevelt and Prime Minister King. Aug. 15, Canadian and United States troops occupied Kiska Island in the Aleutians. Aug. 25, Franklin D. Roosevelt visited Ottawa, the first visit by a United States President to Canada's Capital while holding office.

1944 Feb. 17, Compulsory collective bargaining and arbitration of disputes in war industries made effective by a new Dominion labour code. Mar. 16, Establishment of the Wartime Labour Relations Board. Mar. 20, Lt.-Gen. H. D. G. Crerar appointed to command the First Canadian Army, formerly commanded by Lt.-Gen. A. G. L. McNaughton. May 1-16, Conference of British Commonwealth countries at London, England. May 23, 1st Canadian Corps breaks the Adolf Hitler Line in the Liri Valley, Italy. June 4, Rome captured by Allied troops; June 6, Allied invasion of western Europe commenced by landings of troops in France. July 23, First Canadian Army commenced operations in Normandy as a separate army. Aug. 1, Family Allowances Act given approval in the House of Commons. Sept. 11-16, Second Quebec Conference attended by Prime Minister Churchill and President Roosevelt. Nov. 22, Nineteenth Parliament reconvened in emergency session to consider conscription issue. Nov. 23, Prime Minister King tables an Order in Council making 16,000 draftees available for service overseas.

1945 Feb. 8, First Canadian Army launched offensive in the Rhineland. 1st Canadian Corps moved from Italy to North-West Europe. Mar. 31, British Commonwealth Air Training Plan brought to a close. May 7, Unconditional surrender of the German Armed Forces signed at Reims, France. June 11, Dominion election; Government sustained. Aug. 6, First atomic bomb dropped on Hiroshima, Japan, Canada's part in development of atomic bomb revealed. Aug. 6-10, Dominion-Provincial Conference held at Ottawa. Sept. 1, The Japanese officially laid down their arms. Nov. 26-29, Dominion-Provincial Conference (adjourned Aug. 10, 1945) renewed discussions on Dominion Government brief.

1946 Feb. 15-July 15, Royal Commission appointed to enquire into activities of alleged espionage ring in Canada: four reports were later tabled in the House of Commons: several persons mentioned were detained and later brought before the Courts. Apr. 29, The Dominion-Provincial Conference resumed its sittings, and adjourned five days later without having reached agreement. June 9, The Right Honourable W. L. Mackenzie King established a record for length of time as Prime Minister of Canada. July 5, Canadian dollar adjusted to parity with the United States dollar. July 24, Wheat agreement arranged between Great Britain and Canada for a four-year period. July 29-Oct. 15, The Peace Conference met at Paris, France, to study the texts of the treaty agreements drafted by the Allied Foreign Ministers Council: Prime Minister King and Hon. Brook Claxton, delegates from Canada.

1947 Canadian Citizenship Act came into force. Feb. 12, Prime Minister W. L. Mackenzie King presented to the House of Commons a statement on peacetime defence co-operation between Canada and the United States. June 10-12, President Truman, of the United States, paid an official visit to Ottawa. June 25, Canada and Newfoundland begin discussions regarding Newfoundland's possible entry into Confederation as tenth province. Sept. 30, Canada elected to Security Council of United Nations. Nov. 17, Programme of restrictive measures designed to save U.S. dollars announced.

1948 Apr. 3, United States enacts European Recovery Plan; large sums to be spent in Canada. Apr. 29, Rt. Hon. Louis St. Laurent, Secretary of State for External Affairs, declares Canada ready to join in **"organisation of collective defence."** May 31-June 12, The first Canadian International Trade Fair took place in Toronto. Oct. 4, First of meetings in Ottawa between Newfoundland and Canada to discuss the final arrangements for Newfoundland's entry as tenth Province into the Confederation. Nov. 15, The Right Honourable W. L. Mackenzie King retired and the Right Honourable Louis St. Laurent became Prime Minister of Canada.

CANADIAN CONSTITUTION AND GOVERNMENT

THE Government of Canada was established under the provisions of the British North America Act of 1867. This Statute of the Imperial Parliament, as from time to time amended, forms the written basis of the Constitution of Canada. Subsequent sections of this article described in some detail the processes by which the Constitution has developed and the institutions, as at present constituted, by which Canada is governed.

The several stages in the development of the status of the Dominion have been authoritatively described in the reports of successive Imperial Conferences including that held at London in 1926, which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as " autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or foreign affairs, though united by a common allegiance to the Crown and freely associated as members of the British Commonwealth of Nations." That Conference also recognised that, as a consequence of this equality of status, the Governor General of a Dominion " is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain," and that " it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs." Simultaneously, with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations, there developed, as a complementary aspect of nationhood, the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of nations. Membership in the League of Nations, the exercise of treaty-making powers and the establishment of separate diplomatic representation in a number of foreign countries have characterised this phase in the growth of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminister of 1931, which provided for the removal of the remaining limitations on the legislative autonomy of the Dominions.

THE CONSTITUTION AND GENERAL GOVERNMENT OF CANADA

Canada is the largest in area and the most populous of the great self-governing Dominions of the British Empire, which also include the Commonwealth of Australia, the Union of South Africa, the Dominion of New Zealand, Southern Rhodesia and the island colony of Newfoundland (with Labrador). The Dominions enjoy responsible government of the British type, administered by Executive Councils (or Cabinets) acting as advisers to the representative of the Sovereign, themselves responsible to and possessing the confidence of the representatives elected to Parliament by the people, and giving place to other persons more acceptable to Parliament whenever that confidence is shown to have ceased to exist.*

Of these Dominions, Canada, Australia and South Africa, extend over enormous areas of territory, each of the first two approximating Europe in area. Each section of these countries has its own problems and point of view; a local Parliament for each section, as well as the central Parliament for each country, is required. The local Parliaments, established when transportation and communications were more difficult and expensive than at present, were chronologically prior to the central body, to which on its formation they either resigned certain powers, as in the case of Australia, or surrendered their powers with certain specified exceptions, as in Canada and South Africa. Of such local Parliaments, Canada at the present time has nine, Australia six and South Africa four.

LEGISLATIVE AND EXECUTIVE AUTHORITIES

Dominion Parliament and Ministry

The Dominion Parliament is composed of the King (represented by the Governor General), the Senate and the House of Commons. As a result of the working out of the democratic principle, the part played by the King's Representative and the Upper Chamber of Parliament in the country's legislation has been, in Canada as in the United Kingdom, a steadily decreasing one, the chief responsiblilities involved in legislation being assumed by the House of Commons.

The Governor General of Canada

The Governor General is appointed by the King as his representative in Canada, usually for a term of five years, with a salary fixed at £10,000 sterling per annum, which is a charge against the consolidated revenue of the country. The Governor General is bound by the terms of his commission and instructions and can exercise only such authority as is expressly entrusted to him. He acts under the advice of his Ministry, which is responsible to Parliament, and, as the acting head of the Executive, summons, prorogues and dissolves Parliament, and assents to or reserves bills. In the discharge of these and other executive duties, he acts entirely by and with the advice of his Ministry (the Governor General in Council). The royal prerogative of mercy in capital cases, formerly exercised on the Governor General's own judgment and responsibility, is now exercised pursuant to the advice of the Ministry. The practice whereby the Governor General served as the medium of communication between the Canadian and the British Governments was given up in July 1, 1927, and direct communication is now conducted between His Majesty's Government in Canada and His Majesty's Government in the United Kingdom.

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* In 1934 the Constitution of Newfoundland was temporarily suspended by petition of the Legislature and administration has since been conducted by a Governor acting on the advice of six Commissioners appointed by the Crown—three from Newfoundland and three from the United Kingdom. The Government of the United Kingdom assumed general responsibility for the finances of the Island during the period of reconstruction.

GOVERNORS GENERAL OF CANADA, 1867-1948

Name	Date of Appointment	Date of Assumption of Office
Viscount Monck, G.C.M.G.	June 1, 1867	July 1, 1867
Lord Lisgar, G.C.M.G.	Dec. 29, 1868	Feb. 2, 1869
The Earl of Dufferin, K.P., K.C.B., G.C.M.G.	May 22, 1872	June 25, 1872
The Marquis of Lorne, K.T., G.C.M.G.	Oct. 5, 1878	Nov. 25, 1878
The Marquis of Lansdowne, G.C.M.G.	Aug. 18, 1883	Oct. 23, 1883
Lord Stanley of Preston, G.C.B.	May 1, 1888	June 11, 1888
The Earl of Aberdeen, K.T., G.C.M.G.	May 22, 1893	Sept. 18, 1893
The Earl of Minto, G.C.M.G.	July 30, 1898	Nov. 12, 1898
Earl Grey, G.C.M.G.	Sept. 26, 1904	Dec. 10, 1904
Field Marshall H.R.H. The Duke of Connaught, K.G.	Mar. 21, 1911	Oct. 13, 1911
The Duke of Devonshire, K.G., G.C.M.G., C.G.V.O.	Aug. 19, 1916	Nov. 11, 1916
General The Lord Byng of Vimy, G.C.B., G.C.M.G., M.V.O.	Aug. 2, 1921	Aug. 11, 1921
Viscount Willingdon of Ratton, G.C.S.I., G.C.I.E., G.B.E.	Aug. 5, 1926	Oct. 2, 1926
The Earl of Bessborough, G.C.M.G.	Feb. 9, 1931	Apr. 4, 1931
Lord Tweedsmuir of Elsfield, G.C.M.G., G.C.V.O., C.H.	Aug. 10, 1935	Nov. 2, 1935
Major-General The Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., C.G.V.O., D.S.O.	Apr. 3, 1940	June 21, 1940
Field Marshal The Right Honourable Viscount Alexander of Tunis, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., LL.D., A.D.C.	Aug. 1, 1945	Apr. 12, 1946

The Ministry

Canada's system of government is based upon that of the British, by which a Cabinet or Ministry (composed of members of the House of Commons or the Senate), is responsible to Parliament. The Cabinet is actually a committee of the King's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons and, following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the people's representatives. Members of the Cabinet are chosen by the Prime Minister; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

PRIME MINISTERS SINCE CONFEDERATION

Ministry	Prime Minister	Length of Administration
1	Right Hon. Sir John A. Macdonald	July 1, 1867—Nov. 6, 1873
2	Hon. Alexander Mackenzie	Nov. 7, 1873—Oct. 16, 1878
3	Right Hon. Sir John A. Macdonald	Oct. 17, 1878—June 6, 1891
4	Hon. Sir John J. C. Abbott	June 16, 1891—Dec. 5, 1892
5	Hon. Sir John S. D. Thompson	Dec. 5, 1892—Dec. 12, 1894
6	Hon. Sir Mackenzie Bowell	Dec. 21, 1894—Apr. 27, 1896
7	Right Hon. Sir Charles Tupper	May 1, 1896—July 8, 1896
8	Right Hon. Sir Wilfrid Laurier	July 11, 1896—Oct. 6, 1911
9	Right Hon. Sir Robert L. Borden	Oct. 10, 1911—Oct. 12, 1917 (Conservative Administration)
10	Right Hon. Sir Robert L. Borden	Oct. 12, 1917—July 10, 1920 (Unionist Administration)
11	Right Hon. Arthur Meighen	July 10, 1920—Dec. 29, 1921 (Unionist.. " National Liberal and Conservative Party ")
12	Right Hon. William Lyon Mackenzie King	Dec. 29, 1921—June 28, 1926
13	Right Hon. Arthur Meighen	June 29, 1926—Sept. 24, 1926
14	Right Hon. William Lyon Mackenzie King	Sept. 25, 1926—Aug. 6, 1930
15	Right Hon. Richard Bedford Bennett	Aug. 7, 1930—Oct. 23, 1935
16	Right Hon. William Lyon Mackenzie King	Oct. 23, 1935—Nov. 15, 1948
17	Right Hon. Louis Stephen St. Laurent	Nov. 15, 1948.

MEMBERS OF THE SEVENTEENTH DOMINION MINISTRY

Office	Occupant	Date of Appointment[1]
Prime Minister and President of the Privy Council	Right Hon. Louis Stephen St. Laurent, K.C.	Dec. 10, 1941 Sept. 4, 1946 Sept. 10, 1948 Nov. 15, 1948
Minister of Trade and Commerce	Rt. Hon. Clarence Decatur Howe, K.C., B.Sc.	Oct. 23, 1935 Apr. 9, 1940 Oct. 13, 1944
Minister of Agriculture	Rt. Hon. James Garfield Gardiner, K.C.	Oct. 28, 1935
Minister of Mines and Resources	Hon. James Angus MacKinnon, K.C.	Jan. 23, 1939 May 10, 1940
Secretary of State of Canada	Hon. Colin William George Gibson, M.C., K.C., V.D.	July 8, 1940 Dec. 12, 1946
Secretary of State for External Affairs	Hon. Lester Bowles Pearson, O.B.E.	Sept. 10, 1948
Minister of Labour	Hon. Humphrey Mitchell, K.C.	Dec. 14, 1941
Minister of Justice and Attorney-General of Canada	Hon. Stuart Garson	Nov. 15, 1948
Minister of Public Works	Hon. Alphonse Fournier, K.C.	Oct. 7, 1942
Postmaster General	Hon. Ernest Bertrand, K.C.	Oct. 7, 1942 Aug. 29, 1945
Minister of National Defence	Hon. Brooke Claxton, K.C.	Oct. 13, 1944 Dec. 12, 1946
Solicitor General of Canada	Hon. Joseph Arthur Jean, K.C.	Apr. 18, 1945
Minister of Transport	Hon. Lionel Chevrier, K.C.	Apr. 18, 1945
Minister of National Health and Welfare	Hon. Paul Joseph James Martin, K.C.	Apr. 18, 1945 Dec. 12, 1046
Minister of Finance	Hon. Douglas Charles Abbott, K.C.	Apr. 18, 1945 Dec. 10, 1946
Minister of National Revenue	Hon. James Joseph McCann, M.D.	Apr. 18, 1945
Member of the Administration and Minister without Portfolio	Hon. Wishart McLea Robertson, K.C.	Aug. 29, 1945
Minister of Veterans Affairs	Hon. Wilton Fowler Gregg, V.C.	Jan. 19, 1948
Minister of Fisheries	Hon. Robert Wellington Mayhew, K.C.	June 11, 1948
Minister of Reconstruction and Supply	Col. Hon. Robert Henry Winters	Nov. 15, 1948

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[1] Where more than one date is shown, the first indicates the date of first appointment to the present Cabinet and the last the date of appointment to the portfolio held at present.

MEMBERS OF THE KING'S PRIVY COUNCIL FOR CANADA, ACCORDING TO SENIORITY THEREIN[1]

NOTE.—In this list the prefix Rt. Hon. indicates membership in the Imperial Privy Council. Besides those mentioned in this list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., retired Chief Justice of Canada, is a Canadian member of the Imperial Privy Council.

Name	Date When Sworn In	Name	Date When Sworn In
The Hon. Sir A B. Aylesworth	Oct. 16, 1905	The Hon. Raymond Ducharme Morand	July 13, 1926
The Rt. Hon. W. L. Mackenzie King	June 2, 1909	The Hon. John Alexander Macdonald	July 13, 1926
The Rt. Hon. Sir Thomas White	Oct. 10, 1911	The Hon. Eugene Paquet	Aug. 23, 1926
The Rt. Hon. Arthur Meighen	Oct. 2, 1915	The Hon. Lucien Cannon	Sept. 25, 1926
The Hon. Esioff Leon Patenaude	Oct. 6, 1915	The Hon. William Daum Euler	Sept. 25, 1926
The Rt. Hon. William Morris Hughes	Feb. 18, 1916	H.R.H. The Duke of Windsor	Aug. 2, 1927
The Hon. Albert Sevigny	Jan. 8, 1917	The Hon. Cyrus Macmillan	June 17, 1930
The Hon. Charles Colquhoun Ballantyne	Oct. 3, 1917	The Rt. Hon. Ian Alistair Mackenzie	June 27, 1930
The Hon. James Alexander Calder	Oct. 12, 1917	The Hon. Arthur C. Hardy	July 31, 1930
The Hon. Sydney Chilton Mewburn	Oct. 12, 1917	The Hon. Hugh Alexander Stewart	Aug. 7, 1930
The Hon. Thomas Alexander Crerar	Oct. 12, 1917	The Hon. Donald Matheson Sutherland	Aug. 7, 1930
The Hon. Sir Henry Lumley Drayton	Aug. 2, 1919	The Hon. Alfred Duranleau	Aug. 7, 1930
The Hon. Fleming Blanchard McCurdy	July 13, 1920	The Hon. Thomas Gerow Murhpy	Aug. 7, 1930
The Hon. Henry Herbert Stevens	Sept. 21, 1921	The Hon. W. D. Herridge	June 17, 1931
The Hon. Arthur Bliss Copp	Dec. 29, 1921	The Hon. Robert Charles Matthews	Dec. 6, 1933
The Hon. James Murdock	Dec. 29, 1921	The Hon. Richard Burpee Hanson	Nov. 17, 1934
The Hon. John Ewan Sinclair	Dec. 30, 1921	The Hon. Grote Stirling	Nov. 17, 1934
The Hon. James Horace King	Feb. 3, 1922	The Hon. George Reginald Geary	Aug. 14, 1935
The Hon. Edward James McMurray	Nov. 14, 1923	The Hon. James Earl Lawson	Aug. 14, 1935
The Hon.George Newcombe Gordon	Sept. 7, 1925	The Hon. Samuel Gobeil	Aug. 14, 1935
The Rt. Hon. Charles Vincent Massey	Sept. 16, 1925	The Hon. Lucien Henri Gendron	Aug. 30, 1935
The Hon. Phillippe Roy	Feb. 9, 1926	The Hon. William Earl Rowe	Aug. 30, 1935
The Hon. Charles A. Dunning	Mar. 1, 1926	The Hon. Onesime Gagnon	Aug. 30, 1935
The Hon. George Burpee Jones	July 13, 1926	The Hon. Charles Gavan Power	Oct. 23, 1935
The Hon. Donald Sutherland	July 13, 1926	The Rt. Hon. James Lorimer Ilsley	Oct. 23, 1935

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[1] As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in.

MEMBERS OF THE KING'S PRIVY COUNCIL FOR CANADA, ACCORDING TO SENIORITY THEREIN[1]

Note.—In this list the prefix Rt. Hon. indicates membership in the Imperial Privy Council. Besides those mentioned in the list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., retired Chief Justice of Canada, is a Canadian member of the Imperial Privy Council.

Name	Date When Sworn In	Date	Date When Sworn In
The Hon. Joseph Enoil Michaud	Oct. 23, 1935	The Hon. Leo R. LaFleche	Oct. 7, 1942
The Rt. Hon. Clarence Decatur Howe[3]	Oct. 23, 1935	The Hon. Brooke Claxton[3]	Oct. 13, 1944
The Rt. Hon. James Garfield Gardiner[3]	Nov. 4, 1935	The Hon. A. G. L. McNaughton	Nov. 2, 1944
The Hon. James Angus MacKinnon[3]	Jan. 23, 1939	The Hon. James Allison Glen[3]	Apr. 18, 1945
The Hon. Pierre F. Casgrain	May 10, 1940	The Hon. Joseph Jean[3]	Apr. 18, 1945
The Hon. Colin W. G. Gibson[3]	July 8, 1940	The Hon. Lionel Chevrier[3]	Apr. 18, 1945
The Hon. William Pate Mulock	July 8, 1940	The Hon. Paul Joseph James Martin[3]	Apr. 18, 1945
The Hon. Angus L. Macdonald	July 12, 1940	The Hon. Douglas Charles Abbott[3]	Apr. 18, 1945
The Hon. Leighton G. McCarthy	Mar. 4, 1941	The Hon. James J. McCann[3]	Apr. 18, 1945
The Hon. Joseph T. Thorson	June 11, 1941	The Hon. David Laurence MacLaren	Apr. 18, 1945
The Hon. William F. A. Turgeon	Oct. 8, 1941	The Hon. Thomas Vien	July, 19, 1945
The Rt. Hon. Louis Stephen St. Laurent[2]	Dec. 10, 1941	The Hon. Wishart McL. Robertson[3]	Sept. 4, 1945
The Hon. Humphrey Mitchell[3]	Dec. 15, 1941	The Hon. Milton Fowler Gregg	Sept. 2, 1947
The Rt. Hon. Winston S. Churchill	Dec. 29, 1941	The Hon. Robert Wellington Mayhew	June 11, 1948
The Hon. Alphonse Fournier[3]	Oct. 7, 1942	The Hon. Lester Bowles Pearson	Sept. 10, 1948
The Hon. Ernest Bertrand[3]	Oct. 7, 1942		

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[1] As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in. [2] Ranks as the Prime Minister of Canada. [3] Ranks as a member of the Cabinet.

The Senate

From an original membership of 72 at Confederation, the Senate through the addition of new provinces and the general growth of the Dominion, now has 96 members, the latest change in representation having been made in 1915.

REPRESENTATION IN THE SENATE BY PROVINCES

Speaker	The Honourable James H. King, P.C.
Clerk of the Senate	L. C. Moyer, D.S.O., K.C., B.A.
Leader of the Government	The Honourable Wishart McLea Robertson, P.C.
Leader of the Opposition	The Honourable John T. Haig

(Ranked according to seniority, by provinces. All Senators are entitled to the designation " The Honourable ").

Province and Name of Senator

Prince Edward Island—(4 senators)
Sinclair, John Ewen, P.C.
Macdonald, John A., P.C.
McIntyre, James Peter
Robinson, Brewer

Nova Scotia—(10 senators—3 vacancies)
Dennis, William H.
Quinn, Felix P.
Duff, William
MacLennan, Donald
Robertson, Wishart McL., P.C.
Kinley, John James
McDonald, John Alexander

New Brunswick—(10 senators—1 vacancy)
Bourque, Thomas Jean
McDonald, John Anthony
Copp, Arthur Bliss, P.C.
Jones, George B., P.C.

New Brunswick—(10 senators—1 vacancy)—*cont.*
Leger, Antoine J.
Veniot, Clarence Joseph
McLean, Alexander Neil
Pirie, Frederick W.
Burchill, George Percival

Quebec—(24 senators)
Beaubien, Charles Phillippe
Raymond, Donat
Ballantyne, Charles C., P.C.
Moraud, Lucien
Paquet, Eugene, P.C.
Hugessen, Adrian K.
Fafard, J. Fernand
Howard, Charles Benjamin
Beauregard, Elie
David, Athanase
St.-Pere, Edouard Charles
Hushion, William James
Gouin, Leon Mercier
Vien, Thomas, P.C.
DuTremblay, Pamphile Real
Bouchard, Telesphore D.
Daigle, Armand
Lesage, Joseph Arthur
Vaillancourt, Cyrille
Nicol, Jacob
Ferland, Charles Edouard
Dupuis, Vincent
Dessureault, Jean Marie
Bouffard, Paul H.

Ontario—(24 senators—3 vacancies)
Donnelly, James J.
White, Gerald Verner, C.B.E.
Hardy, Arthur C., P.C.
Aylesworth, Sir Allen Bristol, P.C., K.C.M.G.
McGuire, William H.
Lacasse, Gustave
Wilson, Cairine R.
Murdock, James, P.C.
Sutherland, Donald, P.C.

Ontario—(24 senators—3 vacancies)—*cont.*
Fallis, Iva Campbell
Lambert, Norman P.
Hayden, Salter Adrian
Paterson, Norman McLeod
Duffus, Joseph James
Euler, William Daum, P.C.
Davies, William Rupert
Campbell, Gordon Peter
Taylor, William Horace
Bishop, Charles L.
Roebuck, Arthur Wentworth
Hurtubise, Joseph Raoul
Farquhar, Thomas

Manitoba—(6 senators—1 vacancy)
Mullins, Henry A.
Haig, John T.
Beaubien, Arthur L.
Crerar, Thomas Alexander, P.C.
Howden, John Power

Saskatchewan—(6 senators—1 vacancy)
Calder, James A., P.C.
Marcotte, Arthur
Horner, Ralph B.
Aseltine, Walter M.
Stevenson, J. J.

Alberta—(6 senators—3 vacancies)
Buchanan, William Ashbury
Blais, Aristide
Gershaw, Fred William

British Columbia—(6 senators—1 vacancy)
King, James H., P.C. (Speaker)
Farris, John W. de B.
Turgeon, James Gray
McKeen, Stanley Stewart
Mackenzie, Ian Allistair, K.C.

The House of Commons

In Section 37 of the original British North America Act of 1867 (30 Vict., c. 3) it was provided that " The House of Commons shall, subject to the provisions of this Act, consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia, and fifteen for New Brunswick."* Further, under Section 51, it was enacted that, after the completion of the Census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time, as the Parliament of Canada provided, subject to and according to certain rules set out in the original Act.

Redistribution for 1941 *Postponed.*—For the first time since Confederation, the redistribution of parliamentary constituencies required by the B.N.A. Act after each decennial census, has been postponed. A resolution to that effect was presented to Parliament and forwarded to London in the form of an Address to His Majesty the King. His Majesty caused a Bill to be laid before the Parliament of the United Kingdom for the enactment of the provisions of the resolution; this was duly passed through all stages by July 22, 1943. The Bill provides that " notwithstanding anything in the British North America Acts, 1867 to 1940, it shall not be necessary that the representation of the provinces in the House of Commons be readjusted, in consequence of the completion of the decennial census taken in the year One Thousand Nine Hundred and Forty-One, until the first session of the Parliament of Canada commencing after the cessation of hostilities between Canada and the German Reich, the Kingdom of Italy and the Empire of Japan." During the first Session of the Twentieth Parliament, the House of Commons and the Senate of Canada petitioned the Imperial Government, requesting an amendment to Section 51 of the B.N.A. Act. As a result, that section of the Act was repealed and the following substituted therefor:—

> " (1) The number of members of the House of Commons shall be Two hundred and fifty-five and the representation of the provinces therein shall forthwith upon the coming into force of this section and thereafter on the completion of each decennial census be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following Rules :
>
> (*a*) Subject as hereinafter provided, there shall be assigned to each of the provinces a number of members computed by dividing the total population of the provinces by Two hundred and fifty-four and by dividing the population of each province by the quotient so obtained, disregarding, except as hereinafter in this section provided, the remainder if any, after the said process of division.
>
> (*b*) If the total number of members assigned to all the provinces pursuant to Rule One is less than Two hundred and fifty-four, additional members shall be assigned to the provinces (one to a province) having remainders in the computation under Rule One commencing with the province having the largest remainder and continuing with the other provinces in the order of the magnitude of their respective remainders until the total number of members assigned is Two hundred and fifty-four.
>
> (*c*) Notwithstanding anything in this section, if upon completion of a computation under Rules One and Two, the number of members to be assigned to a province is less than the number of senators representing the said province, Rules One and Two shall cease to apply in respect of the said province, and there shall be assigned to the said province a number of members equal to the said number of senators.
>
> (*d*) In the event that Rules One and Two cease to apply in respect of a province then, for the purpose of computing the number of members to be assigned to the provinces in respect of which Rules One and Two continue to apply, the total population of the provinces shall be reduced by the number of the population of the province in respect of which Rules One and Two have ceased to applv and the number Two hundred and fifty-four shall be reduced by the number of members assigned to such province pursuant to Rule Three.
>
> (*e*) Such readjustment shall not take effect until the termination of the then existing parliament.

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* The sessional indemnity of a member of the House of Commons is $4,000. The remuneration of a Cabinet Minister is $10,000 a year (and of the Prime Minister $15,000 a year) in addition to the sessional indemnity. A Cabinet Minister is also entitled to a motor-car allowance of $2,000. The Leader of the Opposition in the House of Commons receives an annual allowance of $10,000 in addition to the sessional indemnity. The Speaker of the House of Commons receives, in addition to his sessional indemnity of $4,000, a salary and motor-car allowance amounting to $7,000, and is also entitled to an allowance of $3,000 in lieu of residence. Members of the House receive $2,000 per annum as an expense allowance, payable at the end of each calendar year. The allowance is not subject to income tax except in the case of Ministers of the Crown and the Leader of the Opposition.

(2) The Yukon Territory as constituted by C. 41 of the Statutes of Canada, 1901, together with any part of Canada not comprised within a province which may from time to time be included therein by the Parliament of Canada for the purposes of representation in parliament, shall be entitled to one member."

The Franchise at Dominion Elections

It was provided by the British North America Act, 1867, that until, otherwise directed by Parliament, elections to the House of Commons should be governed by the electoral laws of the several provinces. The qualifications of electors throughout the Dominion consequently varied but remained the same for both Dominion and provincial elections in any one province until, in 1885, Parliament legislated on the subject by passing the Electoral Franchise Act (47-48 Vict., c. 40). That Act defined a uniform qualification for voters throughout Canada for Dominion purposes, the basis of this new franchise being the ownership or occupation of land of a specified value, although the sons of owners, and particularly farmers' sons, were given the right to vote under special conditions. This Dominion franchise remained in force for thirteen years, but between 1898 and 1920 under the Franchise Act of the former year (59-60 Vict., c. 14), the provincial franchises were again made applicable at Dominion elections. The adoption of the provincial franchise laws for Dominion purposes was temporarily modified by the War-time Elections Act (7-8 Geo. V, c. 39), which admitted certain female relatives of members of the military forces, or of the naval forces, to vote at Dominion elections. Three years later, on the adoption of a New Dominion Elections Act (10-11 Geo. V, c. 46), the provincial franchises were again wholly abandoned and a new electoral qualification was established for Dominion elections throughout Canada. The right to vote was conferred by the new Act upon all British subjects, men and women, of 21 years and upwards, who had resided in Canada for a year, and for two months in the electoral district in which they desired to vote. Women were granted general franchise in Canada in 1918 (8-9 Geo. V, c. 20), and have voted at all Dominion elections held since that date.

Franchise Legislation now in Force.—The right to vote is at present provided for in the Dominion Elections Act, 1938 (2 Geo. VI, c. 46, as amended by 6 Geo. VI, c. 26). The franchise is conferred upon all British subjects, men and women, who have attained the age of 21 years and who have been ordinarily resident in Canada for 12 months prior to polling day at a Dominion election, and ordinarily resident in the electoral district on the date of the issue of the writ for such election. List of electors are prepared afresh for use at each Dominion election. Those denied the right to vote are:—

1. Judges appointed by the Governor in Council;
2. The returning officer for each electoral district;
3. Persons undergoing punishment as inmates of any penal institution for the commission of any offence;
4. Indians ordinarily resident on an Indian reservation who did not serve in the First or Second World Wars;
5. Persons restrained of their liberty or management of their property by reason of mental disease;
6. Eskimos, whether born in Canada or elsewhere;
7. Persons who are disqualified by reason of race from voting at an election of a member of the Legislative Assembly of a province in which they are residing, and who did not serve in the First or Second World Wars;
8. Doukhobors, residing in the Province of British Columbia, whether born in Canada or elsewhere;
9. Persons disqualified under any law relating to the disqualification of electors for corrupt and illegal practices;
10. Inmates of an institution which is maintained by any government or municipality for the housing of the poor, if such persons are disqualified from voting at an election of a member of the Legislative Assembly of the provinces, and did not serve in the First or Second World Wars;
11. Every Japanese who resided in the Province of British Columbia on July 1, 1938, and on Dec. 7, 1941, who did not serve in the First or Second World Wars.

According to a special procedure prescribed by the Canadian War Service Voting Regulations, 1944, every Canadian on war service in any of His Majesty's Naval, Military, or Air Forces, man or woman, irrespective of age, and whether stationed within or without Canada, was entitled to vote by ballot for the candidate of his choice at a general election held during the Second World War, and such votes applied to the electoral district in which such war service elector ordinarily resided prior to his enlistment, enrolment, appointment, or call-up on war service.

According to the Canadian Prisoners of War Voting Regulations, 1944, any person eligible to vote under the Canadian War Service Voting Regulations, 1944, who became a prisoner of war, or interned in a neutral country, was entitled to vote by proxy at a general election held in Canada during the Second World War, such proxy being his or her next of kin, as officially recorded at Headquarters, and such vote was cast in the polling division in which such next of kin was entitled to vote as a civilian elector.

PROVINCIAL GOVERNMENTS

In each of the provinces, the King is represented by a Lieutenant-Governor appointed by the Governor General in Council and governs with the advice and assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body. The legislatures of all the provinces, with the exception of Quebec, are now unicameral, consisting of a Legislative Assembly elected by the people. In Quebec there is a Legislative Council as well as a Legislative Assembly.

PROVINCES AND TERRITORIES OF CANADA, WITH PRESENT AREAS, DATES OF ADMISSION TO CONFEDERATION, AND LEGISLATIVE PROCESS BY WHICH ADMISSION WAS EFFECTED

Province, Territory or District	*Date of Admission or Creation*	*Legislative Process*	*Present Area (square miles)*		
			Land	*Fresh Water*	*Total*
Ontario	July 1, 1867	Act of Imperial Parliament—The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council of May 22, 1867.	363,282	49,300	412,582[1]
Quebec	July 1, 1867		523,860	71,000	594,860[2]
Nova Scotia	July 1, 1867		20,743	325	21,068
New Brunswick	July 1, 1867		27,473	512	27,985
Manitoba	July 15, 1870	Manitoba Act, 1870 (33 Vict., c. 3.) and Imperial Order in Council, June 23, 1870	219,723	26,789	246,512[3]
British Columbia	July 20, 1871	Imperial Order in Council, May 16, 1871	359,279	6,976	366,255
P.E. Island	July 1, 1873	Imperial Order in Council, June 26, 1873	2,184	[4]	2,184
Yukon	Jun. 13, 1898	Yukon Territory Act, 1898 (61 Vict., c. 6)	205,346	1,730	207,076
Saskatchewan	Sept. 1, 1905	Saskatchewan Act, 1905 (4-5) Edw. VII, c. 42)	237,975	13,725	251,700[5]
Alberta	Sept. 1, 1905	Alberta Act, 1905 (4-5 Edw. VII, c. 3)	248,800	6,485	255,285[5]
Mackenzie	Jan. 1, 1920	Order in Council, Mar. 16, 1918	493,225	34,265	527,490[6]
Keewatin	Jan. 1, 1920		218,460	9,700	228,160[6]
Franklin	Jan. 1, 1920		541,753	7,500	549,253[6]
		TOTALS	**3,462,103**	**228,307**	**3,690,410**

[1] The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40).

[2] Extended by Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45), and diminished in consequence of the Award of the Judicial Committee of the British Privy Council (Mar. 1, 1927), whereby some 112,400 square miles of territory, formerly considered as part of Quebec, were assigned to Newfoundland.

[3] Extended by Extension of Boundaries of Manitoba Act, 1881, and Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32).

[4] Too small to be enumerated.

[5] Alberta and Saskatchewan now cover approximately the area formerly comprised in the districts of Assiniboia, Athabaska, Alberta and Saskatchewan, established May 17, 1882, by minute of Canadian P.C., concurred in by Dominion Parliament and Order in Council of Oct. 2, 1895.

[6] By Order in Council, June 23, 1870, Rupert's Land, acquired under the Rupert's Land Acts of 1867 and 1868, and the undefined Northern Territories were admitted into the Confederation. The original Northwest Territories mentioned in the Manitoba Act, 1870, were established by the Northwest Territories Act, 1880 (43 Vict., c. 25), the District of Keewatin having been previously defined by an Act of the Dominion Parliament (39 Vict., c. 21). The provisional Districts of Yukon, Mackenzie, Franklin and Ungava were defined in an Order in Council of Oct. 2, 1895, their boundaries being changed by Order in Council of Dec. 18, 1897. By Order in Council of July 24, 1905, the area of Keewatin, not included in the Northwest Territories, was annexed to the latter from Sept. 1, 1905. By the Extension of Boundaries Act, 1912, Ungava was made a part of the Province of Quebec, and the remaining area of the Northwest Territories south of 60° N. latitude was divided between Manitoba and Ontario.

LIEUTENANT-GOVERNORS, PREMIERS AND PRESENT MINISTRIES OF PROVINCES

NOTE.—The Lieutenant-Governor of a province is addressed " His Honour " and is also styled " Honourable " throughout his life.

PRINCE EDWARD ISLAND

LIEUTENANT-GOVERNOR J. A. BERNARD

TWENTY-SECOND MINISTRY

(Party standing at the latest General Election, Dec. 11, 1947: 24 Liberals, 6 Progressive Conservatives).

Office	Name	Date of Appointment
President of the Executive Council, Premier, Minister of Education, and Provincial Secretary-Treasurer	Hon. J. WALTER JONES	May 11, 1943
Attorney and Advocate-General	Hon. FREDERIC ALFRED LARGE, K.C.	May 8, 1944
Minister of Public Works and Highways	Hon. GEORGE H. BARBOUR	May 11, 1943
Minister of Agriculture	Hon. W. F. ALAN STEWART	May 8, 1944
Minister of Health and Welfare	Hon. ALEXANDER W. MATHESON, K.C.	Mar. 12, 1948
Minister without portfolio	Hon. HORACE WRIGHT	Sept. 14, 1939
Minister without portfolio	Hon. JOHN A. CAMPBELL	Aug. 15, 1935
Minister without portfolio	Hon. J. WILFRID ARSENAULT	Feb. 12, 1948
Minister without portfolio	Hon. HARRY COX	Apr. 12, 1948

NOVA SCOTIA

LIEUTENANT-GOVERNOR J. A. D. McCURDY, M.B.E.

Fourteenth Ministry

(Party standing at latest General Election, Oct. 23, 1945: 28 Liberals and 2 Co-operative Commonwealth Federation).

Note.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of Appointment
Premier and President of Council and Provincial Treasurer	Hon. Angus L. Macdonald, P.C., K.C.	Sept. 8, 1945
Attorney General and Minister of Labour	Hon. L. D. Currie, K.C.	Feb. 6, 1939
Minister of Public Health, Minister of Public Welfare, Minister of Municipal Affairs and Registrar General	Hon. Frank R. Davis, M.D., C.M.	Sept. 5, 1933
Provincial Secretary and Minister of Mines	Hon. Malcolm A. Patterson	June 10, 1947
Minister of Agriculture and Marketing and Minister of Lands and Forests	Hon. A. W. Mackenzie	Sept. 8, 1945
Minister of Trade and Industry	Hon. Harold Connolly	Feb. 24, 1941
Minister of Highways and Public Works	Hon. Merrill D. Rawding	July 31, 1947
Minister without portfolio	Hon. J. Willie Comeau	Sept. 5, 1933
Minister without portfolio	Hon. Geoffrey Stevens	Apr. 4, 1946

NEW BRUNSWICK

LIEUTENANT-GOVERNOR DAVID LAURENCE MacLAREN

Twenty-First Ministry

(Party standing at latest General Election, June 28, 1948: 47 Liberals and 5 Progressive Conservatives).

Note.—See headnote under Fourteenth Ministry, Nova Scotia.

Office	Name	Date of Appointment
Premier and Attorney-General	Hon. J. B. McNair, K.C.	Mar. 13, 1940
Provincial Secretary-Treasurer and President of Executive Council	Hon. J. J. Hayes Doone	Jan. 10, 1940
Minister of Public Works	Hon. W. S. Anderson	July 16, 1938
Minister of Lands and Mines	Hon. Richard J. Gill	May 16, 1946
Minister of Agriculture	Hon. A. C. Taylor	July 16, 1935
Minister of Health and Social Services	Hon. F. A. McGrand, M.D.	Sept. 27, 1944
Minister of Labour	Hon. Samuel E. Mooers	Sept. 27, 1944
Minister of Education and of Federal and Municipal Relations	Hon. C. H. Blakney	Jan. 10, 1940
Minister of Industry and Reconstruction	Hon. J. A. Doucet	Sept. 27, 1944
Minister without portfolio	Hon. J. Gaspard Boucher	Mar. 13, 1940

QUEBEC

LIEUTENANT-GOVERNOR MAJOR-GEN. Sir EUGENE FISET

Twentieth Ministry

(Party standing at latest General Election, July 28, 1948: 82 Union Nationale, 8 Liberals, and 2 Independent).

Office	Name	Date of Appointment
Premier, Attorney-General and President of Executive Council	Hon. Maurice L. Duplessis	Aug. 30, 1944
Provincial Treasurer	Hon. Onésime Gagnon	Aug. 30, 1944
Minister of Lands and Forests	Hon. J. S. Bourque	Aug. 30, 1944
Minister of Health	Hon. J. A. Paquette	Aug. 30, 1944
Minister of Social Welfare and of Youth	Hon. Paul Sauve	Sept. 18, 1946
Minister of Municipal Affairs	Hon. Bona Dussault	Aug. 30, 1944
Minister of Roads	Hon. Antonio Talbot	Aug. 30, 1944
Minister of Public Works	Hon. Romeo Lorrain	Aug. 30, 1944
Minister of Mines	Hon. Onésime Gagnon	Aug. 1948
Minister of Colonisation	Hon. Jos. D. Bégin	Aug. 30, 1944
Minister of Game and Fisheries	Hon. C. E. Pouliot	Aug. 30, 1944
Minister of Labour	Hon. Antonio Barrette	Aug. 30, 1944
Minister of Trade and Commerce	Hon. Paul Beaulieu	Aug. 30, 1944
Minister of Agriculture	Hon. Laurent Barré	Aug. 30, 1944
Provincial Secretary	Hon. Omer Cote	Aug. 30, 1944
Minister without portfolio	Hon. Antonio Elie	Aug. 30, 1944
Minister without portfolio	Hon. Tancrede Labbé	Aug. 30, 1944
Minister without portfolio	Hon. Marc Trudel	Aug. 30, 1944
Minister without portfolio	Hon. Patrice Tardif	Aug. 30, 1944
Minister without portfolio	Hon. J. T. Larochelle	Aug. 30, 1944
Minister without portfolio	Hon. J. H. Delisle	Aug. 30, 1944

ONTARIO

LIEUTENANT-GOVERNOR RAY LAWSON

Fifteenth Ministry

(Party standing at latest General Election, June 7, 1948: 53 Progressive Conservatives, 21 Co-operative Commonwealth Federation, 14 Liberals and 2 Labour-Progressive).

Office	Name	Date of Appointment
Premier, President of the Council and Minister of Agriculture	Hon. Thomas L. Kennedy	Oct. 19, 1948
Treasurer and Minister of Mines	Hon. Leslie M. Frost, K.C.	Aug. 17, 1943
Attorney-General	Hon. Leslie E. Blackwell, K.C.	Aug. 17, 1943
Minister without portfolio	Hon. George H. Challies	Aug. 17, 1943
Minister of Highways and Minister of Public Works	Hon. George H. Doucett	Aug. 17, 1943
Minister of Municipal Affairs and Minister of Reform Institutions	Hon. George H. Dunbar	Aug. 17, 1943
Minister of Labour	Hon. Charles Daley	Aug. 17, 1943
Minister of Education and Provincial Secretary and Registrar	Hon. Dana H. Porter, K.C.	Oct. 19, 1948
Minister of Health	Hon. Russell T. Kelley	Jan. 7, 1946
Minister of Planning and Development	Hon. Arthur Welsh	Oct. 19, 1948
Minister of Public Welfare	Hon. William A. Goodfellow	Jan. 7, 1946
Minister without portfolio	Hon. William Griesinger	Oct. 19, 1948
Minister of Lands and Forests	Hon. Harold R. Scott	Nov. 28, 1946
Minister of Travel and Publicity	Hon. Louis P. Cecile	Oct. 19, 1948

MANITOBA

LIEUTENANT-GOVERNOR ROLAND FAIRBAIRN McWILLIAMS

Thirteenth Ministry

(Party standing at latest General Election, Oct. 15, 1945: 43 Coalition (26 Liberal Progressive, 15 Progressive Conservatives, 1 Independent, 1 Social Credit), 12 Anti-Coalition (10 Co-operative Commonwealth Federation, 1 Independent Anti-Coalition, 1 Labour-Progressive)).

Office	Name	Date of Appointment
Premier, President of the Council and Minister of Dominion-Provincial Relations	Hon. D. L. Campbell	Nov. 12, 1948
Minister of Agriculture and Immigration	Hon. D. L. Campbell	Sept. 21, 1936
Minister of Education	Hon. John C. Dryden	Feb. 5, 1944
Minister of Mines and Natural Resources, and Minister of Industry and Commerce	Hon. J. S. McDiarmid	May 27, 1932
Provincial Secretary	Hon. C. E. Greenlay	Feb. 14, 1946
Provincial Treasurer	*	
Municipal Commissioner	Hon. W. Morton	Nov. 22, 1939
Minister of Telephones and Telegraphs	Hon. W. Morton	Feb. 11, 1944
Minister of Public Works	Hon. E. F. Willis	Nov. 2, 1940 Dec. 19, 1942
Minister of Health and Public Welfare	Hon. Ivan Schultz, K.C.	Feb. 5, 1944
Attorney-General	Hon. J. O. McLenaghen, K.C.	Nov. 2, 1940 May 3, 1941
Minister of Labour	Hon. C. Rhodes Smith	Feb. 14, 1946
Minister without portfolio	Hon. S. Marcoux	Sept. 21, 1936

* Data not available at time of going to press.

SASKATCHEWAN

LIEUTENANT-GOVERNOR J. M. UHRICH

EIGHTH MINISTRY

(Party standing at latest General Election, June 15, 1944: 31 Co-operative Commonwealth, 5 Liberals and 3 Active Service Voters' Representatives).

Office	Name	Date of Appointment
Premier, President of the Council and Minister of Public Health	Hon. T. C. DOUGLAS	July 10, 1944
Provincial Treasurer	Hon. C. M. FINES	July 10, 1944
Attorney General	Hon. J. W. CORMAN	July 10, 1944
Minister of Natural Resources and Industrial Development	Hon. J. W. BROCKELBANK	1948
Minister of Highways and Transportation	Hon. J. T. DOUGLAS	July 10, 1944
Minister of Education	Hon. W. S. LLOYD	July 10, 1944
Minister of Social Welfare	Hon. J. H. STURDY	1948
Minister of Municipal Affairs	Hon. L. F. MCINTOSH	1948
Minister of Co-operation and Co-operative Development	Hon. L. F. MCINTOSH	July 10, 1944
Provincial Secretary	Hon. C. C. WILLIAMS	1948
Minister of Labour	Hon. C. C. WILLIAMS	July 10, 1944
Minister of Agriculture	Hon. I. C. NOLLET	Jan. 8, 1946
Minister of Public Works	Hon. J. A. DARLING	
Minister of Telephones and Telegraphs	Hon. J. A. DARLING	
Minister of Reconstruction and Rehabilitation	Hon. J. A. DARLING	

ALBERTA

LIEUTENANT-GOVERNOR J. C. BOWEN

EIGHTH MINISTRY

(Party standing at latest General Election, Aug. 17, 1948: 51 Social Credit, 2 Co-operative Commonwealth Federation, 2 Liberals, 1 Independent Social Credit and 1 Independent.

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier. Where two dates are shown the first denotes the original appointment to the Ministry and the second to the portfolio held at present).

Office	Name	Date of Appointment
Premier and Provincial Treasurer	Hon. ERNEST C. MANNING	May 31, 1943 Sept. 12, 1944
Attorney-General	Hon. LUCIEN MAYNARD	June 1, 1943
Minister of Education	Hon. IVAN CASEY	Feb. 21, 1948
Minister of Lands and Mines	Hon. NATHAN E. TANNER	Jan. 5, 1937
Minister of Public Works and Minister of Railways and Telephones	Hon. D. B. MACMILLAN	Dec. 3, 1940 May 8, 1948
Minister of Health and Minister of Public Welfare	Hon. W. W. CROSS, M.D.	Sept. 3, 1935 Mar. 30, 1944
Minister of Economic Affairs	Hon. ALFRED J. HOOKE	June 1, 1943 Apr. 20, 1945
Minister of Municipal Affairs and Provincial Secretary	Hon. C. E. GERHART	June 1, 1943 May 8, 1948
Minister of Agriculture	Hon. D. A. URE	May 8, 1948
Minister of Industries and Labour	Hon. J. L. ROBINSON	May 8, 1948

BRITISH COLUMBIA

LIEUTENANT-GOVERNOR COL. THE HON. CHARLES ARTHUR BANKS, C.M.G.

TWENTY-THIRD MINISTRY

(Party standing at latest General Election, Oct. 25, 1945: 37 Coalition (26 Liberals, 11 Conservatives), 10 Co-operative Commonwealth Federation and 1 Labour).

Office	Name	Date of Appointment
Premier and President of the Council	Hon. BYRON INGEMAR JOHNSON, M.B.E.	Dec. 29, 1947
Provincial Secretary and Minister of Health and Welfare	Hon. GEORGE SHARRATT PEARSON	Dec. 29, 1947
Attorney-General and Minister of Labour	Hon. GORDON SYLVESTER WISMER, K.C.	Dec. 29, 1947
Minister of Lands and Forests	Hon. EDWARD TOURTELLOTTE KENNEY	Dec. 29, 1947
Minister of Finance	Hon. HERBERT ANSCOMB	Dec. 29, 1947
Minister of Agriculture	Hon. FRANK PUTNAM	Dec. 29, 1947
Minister of Mines and Minister of Municipal Affairs	Hon. RODERICK CHARLES MACDONALD	Dec. 29, 1947
Minister of Railways, Minister of Trade and Industry and Minister of Fisheries	Hon. LESLIE HARVEY EYRES	Dec. 29, 1947
Minister of Public Works	Hon. ERNEST CRAWFORD CARSON	Dec. 29, 1947
Minister of Education	Hon. WILLIAM THOMAS STRAITH, K.C.	Dec. 29, 1947

YUKON TERRITORY

NOTE.—The Yukon, formerly a District of the Northwest Territories, was made a separate Territory in 1898. The Yukon Act provides for a local government composed of a Chief Executive, styled Commissioner but since classified as Controller; also an elective Legislative Council of three members having a three-year tenure of office. The Yukon Territorial Council performs much the same functions as do the Provincial Governments. The Controller functions in lieu of the Provincial Cabinet and the three members of the Territorial Council function in lieu of the Provincial Parliament. The seat of local government is at Dawson, but the Controller acts under instructions from the Governor General in Council or the Minister of Mines and Resources at Ottawa. The Commissioners who held office previous to the present are listed at p. 78 of the 1946 Year Book.

CONTROLLER: JOHN EDWARD GIBBEN, Sept. 13, 1947

TERRITORIAL COUNCIL

(Three members elected 1944, for 3 years).

Dawson District	JOHN R. FRASER, Dawson
Whitehorse District	R. GORDON LEE, Whitehorse
Mayo District	ERNEST J. CORP, Keno Hill

THE NORTHWEST TERRITORIES

NOTE.—In 1888, the Districts of Alberta, Assiniboia, Athabaska, and Saskatchewan, then called the Northwest Territories, with their capital at Regina, were given responsible government, and the former Northwest Council was replaced by the Northwest Legislature, which existed until Aug. 31, 1905. When the area included in these Districts was formed into the Provinces of Alberta and Saskatchewan on Sept. 1, 1905, these provinces were given systems of government similar to the other provinces of the Dominion. The prevailing form of government for the remaining part of the Terrorities was discontinued in 1905 and the office of Lieutenant-Governor abolished In its place, government was vested in a Commissioner and a Council, now composed of six members, one of whom may be appointed Deputy Commissioner. The administration of the various Acts, Ordinances, and Regulations pertaining to the Northwest Territories is supervised by the Director of the Lands, Parks and Forests Branch, Department of Mines and Resources, who is also Deputy Commissioner. The seat of government is at Ottawa.

TERRITORIAL COUNCIL

(Appointed by the Governor General in Council)

Commissioner—HUGH L. KEENLEYSIDE.
Deputy Commissioner—ROY ALEXANDER GIBSON.
Members of the Council—AUSTIN LOUIS CUMMING; KENNETH ROBINSON DALY; ROBERT ALEXANDER HOEY, STUART TAYLOR WOOD.
Secretary—JAMES GOLDWIN WRIGHT.

DOMINION-PROVINCIAL RELATIONS

Prepared by D. A. Skelton, Research Adviser, Bank of Canada, Ottawa

THE genesis of the current phase of Dominion-Provincial relations was the Dominion-Provincial Conference of December, 1936. At that time drought and depressed prices had led the Government of Alberta into partial default on its outstanding debt, and the Governments of Saskatchewan and Manitoba made clear at the Conference that in default of assistance they would be forced to take similar action. On the invitation of the Dominion Minister of Finance and the Premiers of the three Prairie Provinces, the Bank of Canada undertook an examination of their financial positions. The Bank's report on Manitoba was made public on Feb. 15, on Saskatchewan on Mar. 15, and on Alberta on Apr. 7, 1937. The Bank Report recommended certain interim financial assistance from the Dominion Government but concluded that no solution seemed possible other than that which might be provided by a complete inquiry into the financial powers and responsibilities of Canadian governing bodies at all levels. In addition to the special difficulties of the Prairie Provinces, the burden of relief had weakened the financial position of all provincial and municipal governments, and had finally proved completely beyond their capacity to bear in its entirety.

Royal Commission on Dominion-Provincial Relations.—By P.C. 1908 on Aug. 14, 1937, the Royal Commission on Dominion-Provincial Relations was establised. The Chairman was the Hon. N. W. Rowell, Chief Justice of Ontario, and the members were the Hon. Thibaudeau Rinfret, Justice of the Supreme Court of Canada, Dr. J. W. Dafoe of Winnipeg, Dr. R. A. MacKay of Dalhousie University, and Professor H. F. Angus of the University of British Columbia. Subsequently the Hon. Justice Rinfret was compelled to retire owing to ill health and was replaced by Dr. Joseph Sirois of Quebec. Illness also forced the resignation of Chief Justice Rowell in 1938 and Dr. Sirois was appointed Chairman to succeed him. The Commission has consequently been generally known as the Rowell-Sirois or Sirois Commission. The report, submitted on May 3, 1940, recommended important financial and jurisdictional changes, of which the chief were: (1) exclusive Dominion jurisdiction in income tax, corporation tax and succession duty fields; (2) acceptance by the Dominion of responsibility for relief to able-bodied unemployed; (3) assumption by the Dominion of net provincial debt charges; and (4) payment by the Dominion of national adjustment grants designed to put each Provincial Government in a position to provide average standards of services without imposing higher than average rates of taxation.

Dominion-Provincial Conference, January, 1941.—A Dominion-Provincial Conference was called in January, 1941, to consider the Royal Commission Report. The Conference broke down on the second day in the face of opposition from the Premiers of Ontario, British Columbia and Alberta.

Wartime Tax Agreements.—Later in the year the Dominion Government proposed that, in order to meet the exigencies of the War, the Provincial Governments (and their municipalities) should suspend imposition of income taxes and corporation taxes for the duration of the War and one year after, and be reimbursed by the Dominion on the basis of either the 1940 revenues of the particular Province from these sources, or the amount of that Province's net debt service less succession duty collections in 1940. There were also some relatively small fiscal-need subsidies proposed and an offer to guarantee provincial gasoline tax revenues at the 1940 level. Agreements were negotiated with all the Provincial Governments in 1941 and the necessary legislation was passed in the spring of 1942. Under these agreements, which brought into effect an important part of the Sirois Report recommendations for the duration of the War, the Dominion was given a free hand in the income and corporation tax fields and developed these sources of revenue very susbtantially as aid both in financing the War and in combating inflation. The other chief problems with which the Sirois Report dealt, such as provincial debts and unemployment and agricultural relief, were for the time being thrust into the background.

Dominion-Provincial Conference, 1945-46.—Since the Wartime Tax Agreements were of temporary duration only and since a number of the pre-war financial and constitutional problems promised to arise in even more aggravated form upon the termination of these agreements, the Dominion formulated proposals for a new agreement. These proposals were submitted at a Dominion-Provincial Conference called in August, 1945. They were broader in scope that the Sirois Report recommendations, primary stress being placed on the maintenance of a high and stable level of employment and income. To this end, not only important fiscal changes but also greatly developed public investment and social security policies were suggested. The agreement was proposed initially for a three-year period and would involve no constitutional changes, although there was one recommendation for a constitutional amendment to provide for delegation of powers from the Dominion Government to a Provincial Government or vice versa whenever desired by both Governments.

The fiscal proposals were that the Provinces should withdraw from the personal income tax, corporation tax and succession duty fields in return for annual subsidies which would not fall below a guaranteed minimum and which would rise proportionally with population and increases in per capita gross national product. The amount of the subsidies proposed was approximately 50 per cent above the provincial receipts under the Wartime Tax Agreements.

The public investment proposals outlined a substantial expansion in the Dominion programme for natural resource development, conservation, and public works, and also a large increase in Dominion assistance to provincial services and construction projects either through joint participation or by grants-in-aid. Particular emphasis was put upon, and tangible encouragement offered to, the advance planning of works and, in so far as practicable, the timing of public investment expenditures with a view to helping to stabilise employment and offset fluctuations in the business cycle.

The social security proposals were among the most extensive undertaken by any country. Family allowances had already been put into effect in 1945. The Dominion now proposed in addition, to pay a $30 a month old-age pension without a means test to everyone 70 years of age or over; to contribute 50 per cent to provincially administered old-age assistance under a means test for people from 65 to 69; to make grants to the Provincial Governments for general preventive public-health work and for the prevention and cure of tuberculosis, mental diseases, venereal disease, and other specific ills; to contribute approximately 60 per cent of the cost of provincially administered health insurance schemes; to make low-interest loans for hospital construction; to provide assistance for all unemployed able and willing to work, not covered by unemployment insurance, at the scale of approximately 85 per cent of the unemployment insurance benefits; to provide and assist in the provision of greatly expanded vocational training and other rehabilitation services to improve employability.

The Dominion-Provincial Conference in August adjourned, after five days' discussion, to consider the proposals and any alternatives or amendments to them. A Co-ordinating Committee under the chairmanship of the Prime Minister of Canada, consisting of three Dominion Ministers and the nine Provincial Premiers, was established and subsequently held three meetings in camera from Nov. 26 to Nov. 30, 1945, from Jan. 28 to Feb. 1, 1946, and on Apr. 25 and 26, 1946. An Economic Committee, consisting largely of technical representatives of the different Governments, was also established and met for three weeks in December, 1945, and January, 1946, for the exchange of information and the development and clarification of the proposals in detail. The Economic Committee under its terms of reference made no collective report, but its members reported to their respective Governments. The Co-ordinating Committee reported back to a full plenary session of the Dominion-Provincial Conference when it reassembled on Apr. 29, 1946.

The Dominion put forward a number of modifications that had been made in its original proposals in the light of discussions in the Co-ordinating Committee. The most important of these were: an increase in the guaranteed minimum annual subsidy from $12 per capita to $15; an optional provision in connection with succession duties which would enable any province that wished to continue levying succession duties subject to an adjustment in its annual subsidy and with provision for offsetting credits to the taxpayer; and an expression of willingness by the Dominion to withdraw from certain tax fields as requested by some of the Provincial Governments in return for an adequate financial equivalent.

By this time submissions in relation to the Dominion proposals had been made by all the Provincial Governments. Most of these submissions accepted the Dominion proposals in principle but contained a number of suggested modifications. The submission of the Government of Ontario suggested an alternative approach and differed in principle on some important issues. After five full days of discussion it was found that too wide a gap existed to enable an agreement to be reached at that time and the Conference adjourned *sine die*. The Dominion advised that it would have to proceed with the formulation of its Budget policies in the light of these circumstances.

The Budget Proposals of June, 1946.—The Budget of June 27, 1946, included proposals for a tax agreement which could be entered into by any individual province. In compliance with the Wartime Tax Agreements, the Dominion undertook to reduce the standard corporation income tax from 40 per cent to 30 per cent and also to reduce the personal income taxes for 1947. The Dominion would also give a tax credit of the amount of personal income tax paid any province up to 5 per cent of the tax payable to the Dominion. The Dominion proposed to double its succession duty tax, but to provide a credit against this tax of the amount of succession duties paid to a Provincial Government up to 50 per cent of the Dominion tax. If a province was prepared to agree to withdraw from income tax, corporation tax and succession duty fields for five years, the Dominion would undertake to pay the annual per capita subsidy under the terms proposed at the Conference. Agreeing provinces would be required to levy a 5 per cent on net corporate income within the province to be collected by the Dominion, and the proceeds of this tax would be deducted from the annual subsidy.

The objective of the Budget proposals was to secure tax agreements with the provinces, but the proposals were designed to enable a Province which might prefer to continue its own taxation to do so without unduly penalising its taxpayers.

Dominion-Provincial Tax Agreements.—Following the Budget Address, several provinces entered into negotiations with the Dominion. During the course of these negotiations the formula on which Dominion payments to the provinces would be based was expanded. Three alternatives were offered: (1) the formula as proposed in the Budget Speech, with increases based on increases in gross national production and population applying to the $15 per capita minimum or, in the case of British Columbia and Prince Edward Island, to the lump sum minimum which they had elected; (2) a combination of $12·75 per capita of 1942 population, plus 50 per cent of provincial income and corporation income tax receipts in 1940, plus the statutory subsidies, increased according to increases in gross national production and population; or (3) $15 per capita of 1942 population plus the statutory subsidies, increased according to increases in gross national production and population.

If all provinces should conclude agreements with the Dominion, and assuming that each took the option most favourable to it, the guaranteed minimum annual payment to each province and the amount payable in 1947 as estimated at the beginning of that year, as compared with the total receipts under the Wartime Tax Agreements and from succession duties and statutory subsidies, would be as follows:—

	Proposed Agreement		*Total Annual Receipts during Wartime from Wartime Tax Agreements, Succession Duties, and Statutory Subsidies*
	Guaranteed Minimum	*Estimated 1947*	
	$'000,000	$'000,000	$'000,000
Prince Edward Island ..	2·1	2·3	1·2
Nova Scotia	10·9	12·1	4·2
New Brunswick	8·8	9·4	4·8
Quebec	56·4	63·0	31·3
Ontario	67·2	74·0	44·3
Manitoba	13·5	14·2	8·0
Saskatchewan	15·2	15·7	8·2
Alberta	14·0	14·8	8·2
British Columbia	18·1	21·4	14·3
Totals ..	206·2	226·9	124·5

The Dominion Government also undertook to withdraw, on Mar. 31, 1947, its wartime tax on gasoline of 3 cents a gallon, leaving this field of taxation, which was yielding the Dominion approximately $35,000,000 annually, entirely to the provinces.

Six provinces—Prince Edward Island, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia—have agreed in principle to rent their corporation tax, income tax and succession duty fields to the Dominion for five years in exchange for the payments as shown above. Legislation will be introduced in the Dominion and Provincial Houses in the spring of 1947 in order to implement these agreements. On the other hand, the Governments of Ontario and Quebec announced in March, 1947, their budget proposals for the fiscal year 1947-48. These proposals included a 7 per cent corporation tax, the maintenance of existing succession duties, and no personal income tax. At the time of its Budget announcement, the Government of Ontario made it clear that it would like to see the Dominion-Provincial Conference reconvened in the hope of arriving at a general tax agreement. The Dominion Government has committed itself to holding a Dominion-Provincial Conference to deal with the social security and public investment proposals of the 1945 Conference as soon as tax agreements are concluded with all provinces.

CANADA'S NATIONAL INCOME AND EXPENDITURE

Dr. C. M. ISBISTER

Chief Economist and Director, Central Research and Development Division, Dominion Bureau of Statistics, Ottawa.

IN recent years there has been increasing realisation that national accounts are essential tools in the formulation of economic policy just as an accounting system is essential to the successful conduct of a large private business. Problems involved in the planning of a maximum war effort have emphasised the need of knowledge of the size and structure of the national income; of the relation of net national income to gross national product; of the distribution of national expenditure as between different sectors of the economy, as between consumption and investment, and as between war and non-war; and of the distribution of income payments to individuals by income classes. Planning for full employment and social security in the post-war requires similar information. Accounts for the economy as a whole are indispensable instruments of understanding.

By an extension of familiar accounting principles it is possible to present a system of national accounts, and the Dominion Bureau of Statistics has recently undertaken a new and comprehensive programme in this field Much of the work is similar to that formerly encompassed under the phrase "national income," but the present estimates of national income and expenditure are somewhat broader in their scope than any previously published by the Bureau.

Structure of National Accounts

In examining the structure of the national accounts interest centres primarily about the two balancing concepts of gross national product and gross national expenditure. These measure in two different ways the total money value of all final goods and services produced by the community in any year; that is all goods and services purchased directly by individuals for consumption as well as those purchased by government on behalf of the community. In addition, there are all the goods and services which are used to maintain or increase the country's stock of capital equipment. The intermediate goods and services purchased by one business from another and used up in the process of production, in other words the raw materials of production, are automatically included in the value of final goods and services and do not need to be counted specifically.

Gross national product measures the country's production through a compilation of the costs involved in production. Gross national expenditure measures production by analysis of the sales of final goods and services to all sections of the economy. These are summarised in the Tables below.

TABLE I

NET NATIONAL INCOME AT FACTOR COST AND GROSS NATIONAL PRODUCT AT MARKET PRICES

(millions of dollars)

Item No.		1938	1939	1940	1941	1942	1943	1944	Prelim. 1945
1.	Salaries, wages and supplementary labour income	2,449	2,540	2,860	3,529	4,233	4,790	4,969	5,037
2.	Military pay and allowances	9	32	193	386	641	910	1,068	1,089
3.	Investment Income	692	782	1,110	1,518	1,765	1,809	1,785	1,811
4.	Net income of individual enterprise, agricultural and other	790	867	949	1,081	1,638	1,560	1,863	1,690
5.	NET NATIONAL INCOME AT FACTOR COST (1) + (2) + (3) + (4)	3,940	4,221	5,112	6,514	8,277	9,069	9,685	9,627
6.	Indirect taxes less subsidies	646	743	843	1,062	1,092	1,125	1,125	992
7.	Depreciation allowances and similar business costs	504	528	581	684	771	819	771	750
8.	Residual error of estimate for reconciliation with Table II, item 6	−15	+3	+92	+75	+156	+111	+190	−10
9.	GROSS NATIONAL PRODUCTS AT MARKET PRICES (5) + (6) + (7) + (8)	5,075	5,495	6,628	8,335	10,296	11,124	11,771	11,359

TABLE II

GROSS NATIONAL EXPENDITURE AT MARKET PRICES

(millions of dollars)

Item No.		1938	1939	1940	1941	1942	1943	1944	Prelim. 1945
1.	Government expenditure on goods and services—								
	(a) War	37	210	826	1,952	3,585	4,407	4,542	3,726
	(b) Non-war	854	880	688	648	738	952	783	667
2.	Gross private investment at home	450	705	1,004	1,122	793	304	620	746
3.	Net private investment abroad*	18	−97	−90	−268	−175	−324	−252	−365
4.	Personal expenditure on consumers' goods and services	3,700	3,799	4,293	4,956	5,511	5,896	6,268	6,576
5.	Residual error of estimate for reconciliation with Table I, Item 9	+16	−2	−93	−75	−156	−111	−190	+9
6.	GROSS NATIONAL EXPENDITURE AT MARKET PRICES (1) + (2) + (3) + (4) + (5)	5,075	5,495	6,628	8,335	10,296	11,124	11,771	11,359

* These figures do not correspond to the net international balance on current account, since a large portion of wartime exports is included in government expenditure in Item 1.

The equality of the two totals thus derived may be illustrated by comparing the economic activity of the country with the operations of a number of affiliated companies which buy only from each other but sell also to the general public and to the government. If the operating accounts of these companies were consolidated, inter-company transactions in those goods and services which are charged as operating costs would cancel out. On one side of the consolidated account would appear payments to persons, such as salaries and wages, interest and rent; current appropriations for depreciation and other business reserves; payments of indirect taxes to governments; and the total net income of the various companies, divided into corporate profits taxes, dividends and undistributed profits. On the other side of the account would appear sales of goods and services to the general public and to the government and inter-company sales of those goods which have not been charged as operating costs by the purchaser—i.e., capital goods.

It is clear that in this case the two sides would balance since the consolidated sales total must equal the costs of production and net profits of the companies.

The tables of gross national product and gross national expenditure present comparable accounts for the country as a whole except that they are made a little more complicated by the existence of international transactions. Take for consideration a " closed " economy—i.e., a country which has no international transactions. On the one side of the account would be listed in consolidated form all the costs involved in production, including profits and indirect taxes; on the other side would be recorded the proceeds of final sales. The equality of the two sides arises from the fact that all final goods and services produced during a period must be disposed of in some way. Either they are purchased by ultimate consumers or by the government on behalf of the community, or they are used for replacement or expansion of plant and equipment or for addition to inventories. Alternatively, all revenues from the sale of final goods and services can be resolved into earnings arising in production, depreciation allowances and indirect taxes.

Gross National Product

The first step in compiling gross national product is to add up all the incomes earned by factors of production for their share in the current production of goods and services. These include labour income, broadly interpreted as salaries, wages and supplements; military pay and allowances; investment income inclusive of interest, rent and corporate profits; and income of individual enterprisers, such as farmers, whose earnings are a mixture of wages and investment income. In each case these earnings are estimated before deduction of income taxes or profits taxes. Net national income at factor cost, an aggregate which is useful for certain analytical purposes, is defined as the remuneration of all these factors of production in return for services rendered in a given year.

Since net national income at factor cost is a compilation of the amounts earned by factors of production for their services, it excludes certain elements of cost which cannot be regarded as the return to any factor of production but are nevertheless included in the market prices and the market costs of goods. The most important of these exclusions are current appropriations for depreciation and other business reserves, and indirect taxes such as sales and excise taxes. To arrive at gross national product at market prices, these items have been added to net national income at factor cost.

Gross National Expenditure

Gross national expenditure is compiled by adding up all the sales of final goods and services to various sections of the community and it therefore shows the way in which the incomes included in gross national product are spent. It is termed gross because no deduction is made for replacement of existing capital equipment which wears out or becomes obsolete in the course of production.

The main expenditure groups are government expenditure on all types of goods and services; personal expenditure on consumer goods and services; and investment in capital goods, including houses and additions to inventories. These three classes of expenditure would be sufficient to balance the account for an economy which had no transactions with the outside world. A further adjustment to gross national expenditure is necessary to allow for Canada's international transactions. This adjustment is determined by subtracting current imports from current exports. If Canadian exports of goods and services exceed imports, a portion of the gross national product is not available for distribution in Canada, and the value of this difference must be added to the classes of expenditure listed above. If the balance lies the other way, the expenditure on goods and services in Canada will be greater than the production, and must be compensated by an equivalent deduction in the gross national expenditure. Part of the necessary adjustment is included in the present tables under the heading of net private investment abroad and part is included under government expenditure.

The problem of post-war reconstruction is accurately summarised in the table of gross national expenditure. At the wartime peak government expenditures on goods and services made up nearly half the total. As these expenditures dwindle the problem is whether effective demand will increase sufficiently in the other sectors, in the form of consumer expenditure, private investment and exports. This is of crucial importance in maintaining full employment.

In interpreting the course of these figures through the reconstruction period, it must always be kept in mind that the money totals are affected by the level of prices and costs, as well as by the physical volume of goods and services. This reservation has become particularly important of late, for as the figures of expenditure are shown *at market prices* the gross national expenditure may rise without any actual increase in the physical amount of the goods and services sold. The chief problem in preparing an index to reflect gross national expenditure in constant dollars is a lack of homogeneity in the price rise of goods sold to the general public, and the lack of any standard for evaluating the output of war goods in terms of the pre-war dollar.

Personal Income Payment

For certain purposes, it is useful to estimate the amount of personal incomes actually received by individuals in Canada which is not the same aggregate as net national income at factor cost. Personal income payments are summarised in Table III. On the one hand, national income at factor cost includes certain factor earnings which are not actually paid out to individuals, although in some cases they may be paid out in a later period. Thus undistributed profits of corporations are included in national income in the year in which they are earned, although they are not disposed of until later. Trading profits and interest earned by governments are included although they are never paid out directly to individuals. On the other hand, the total of personal income payments includes certain incomes received by individuals which do not represent payments for the production of goods and services and therefore are excluded from national income at factor cost. Such payments are usually referred to as transfer payments since they are essentially transfers of income through the medium of the government from one set of individuals to another. While they represent income to some groups of individuals, they do not represent any addition to the flow of goods and services available to the community as a whole.

An important example of a transfer payment is interest on that portion of government debt which has not been incurred to finance the production of existing real assets. It is assumed that interest paid on debt incurred to finance existing real assets represents a payment for current productive services and this portion is therefore included in national income at factor cost. The remainder of public debt interest, such as interest on debt incurred to finance wars, is treated as a transfer payment. Other examples of transfer payments are unemployment relief, old age pensions and family allowances.

The Dominion Bureau of Statistics has issued recently its first volume on this general subject, entitled *National Accounts, Income and Expenditure*, 1938-1945. It is planned to extend the scope of the accounts into additional balancing tables dealing with sectors of the economy. Additional statistical information will be used to improve the accuracy of the accounts wherever possible.

TABLE III

PERSONAL INCOME PAYMENTS

(millions of dollars)

Item No.		1938	1939	1940	1941	1942	1943	1944	Prelim. 1945
1.	Net national income at factor cost (cf. Table I, Item 5)	3,940	4,221	5,112	6,514	8,277	9,069	9,685	9,627
2.	*Add:* Transfer payments from governments and business to individuals	346	347	342	327	357	396	501	836
3.	*Less:* Employer and employee contributions to social security and industrial pension funds	48	53	59	96	144	185	173	179
4.	*Less:* Components of investment income (cf. Table I, Item 3) not paid out to individuals	265	344	641	1,033	1,235	1,303	1,289	1,330
5.	PERSONAL INCOME PAYMENTS (1) + (2) − (3) − (4)	3,973	4,171	4,754	5,712	7,255	7,977	8,724	8,954

NOTE.—The residual error shown in Table I, Item 8, and in Table II, Item 5, has not been taken into account in Table III.

CANADIAN BALANCE OF INTERNATIONAL PAYMENTS

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THE Canadian international investment position has undergone a considerable change in recent decades. The Amount of external capital invested in Canada has been very substantial and played an important part in the development of the country. Before the first Great War, British investments in Canada were predominant among external capital invested in the country, but during that war and the inter-war years United States investments grew sharply and by the end of 1939 amounted to a total of $4,190 million, compared with British investments of $2,466 million and investments of other countries of $270 million or a total non-resident investment in Canada of $6,926 million. During the inter-war years there had been large flotations of bonds in the United States by

Canadian governments and corporations and heavy investments of capital by United States corporations in branch plants and subsidiaries in Canada. By the beginning of the recent war there were at least 1,580 Canadian subsidiaries of United States companies and 381 unincorporated branches in which the amount of capital was appreciable. The value of United States investments in Canada in businesses controlled in the United States amounted to $1,919·5 million, this type of investment in manufacturing companies representing 33 per cent of the total investment of all manufacturing establishments in Canada. In the years immediately before the recent war, however, Canadian governments and corporations had been retiring bond issues originally sold in the United States and American holdings of these securities at the beginning of the war was somewhat less than at the peak during the inter-war period. There was, however, a considerable investment of Canadian capital in the United States and overseas during the inter-war period. At the beginning of the war Canadian long-term investments abroad, excluding investments of insurance companies, banks and government assets, had a value of $1,340 million. In addition Canadian holdings of gold and United States dollars had a value of $393·1 million. The distribution of British and foreign investments in Canada and Canadian investments abroad is shown in Table I.

Wartime changes in the balance of indebtedness have had the effect of reducing the balance of Canadian indebtedness to the United Kingdom through Canadian repatriations of securities held in the United Kingdom of more than $1 billion and through the loan in 1942 to the United Kingdom of $700 million of which about $561 million was outstanding at the end of 1945. Mutual Aid and the Billion Dollar Contribution by Canada to the United Kingdom, however, provided the principal means of financing the British wartime deficiency of Canadian dollars. While the net over-all position with respect to the United States dollar area did not greatly alter during the war, there was a substantial increase in United States investments in Canada and a considerable liquidation of Canadian holdings of United States securities which were largely offset, however, by increases in Canadian holdings of United States dollars and gold.

During the transitional post-war years a new factor has come to the fore influencing Canada's international investment position, the extension of substantial export credits and other international loans with the purpose of meeting the transitional needs of countries recovering from the effects of the war. The loan of $1,250 million to the United Kingdom of March, 1946 and the export credits of $594·5 million extended up to now under part 2 of the Export Credit Insurance Corporation Act are the principal forms of Canadian lending during the transitional years. Membership in the International Monetary Fund and the International Bank for Reconstruction and Development are further evidence of Canadian international participation and the interest which the country has in the restoration of multilateral trade.

As these developments in Canada's investment position imply, important changes have been taking place in the Canadian balance of international payments. The structure of the Canadian balance of payments before the war possessed some very definite characteristics. Prominent among these was the wide disequilibrium in Canada's current accounts with both the United Kingdom and the sterling area, and the United States. With the United Kingdom and to a less extent with the rest of the sterling area and other overseas countries there have been large credit balances on current account for a long period of years, arising from the customarily large volume of Canadian exports to these countries which exceeds Canadian imports from the same countries and Canadian payments of interest and dividends on investments in Canada and the payments for shipping and other services. With the United States, in contrast, there are normally substantial deficits on current account arising from a customary excess of merchandise imports from the United States over exports to that country and large payments of interest and dividends by Canada to investors in the United States. Canadian revenue from gold production and the tourist trade have been customarily insufficient to cover the net current liabilities for merchandise, transportation, investment income and miscellaneous services, with the exception in 1944 and 1945 when there were small current surpluses with the United States which appeared temporarily as a result of the extraordinarily heavy non-recurring receipts from the sale of Canadian munitions and grain to the United States. Tables II to V show statements of the Canadian balance of international payments.

The merchandise balance with the United States is usually the most variable factor influencing the current deficit with that country, being affected by diverging trends in income and production in the two countries. Canadian imports from the United States cover a very wide range of commodities and are closely related to consumption and investment in Canada. Many industries, in the durable goods field particularly, are dependent upon the United States for industrial materials and components. Canadian exports to the United States on the other hand are more limited in range. American demand for some is quite variable, often being affected by supply conditions in the United States as in the case of grain.

Before the war disrupted the system of multilateral settlements this disequilibrium was to a large extent offsetting and did not create the financial and currency problems which have characterised the Canadian balance of payments situation since the beginning of the recent war. This was possible since sterling income was formerly freely convertible into U.S. dollars and was used to cover the current account deficit with the United States with income from overseas trade.

The wartime changes had the effect of greatly widening the disequilibrium in the current account with each area. The financial and currency problems connected with the inconvertibility of sterling into U.S. dollars arose from the Canadian shortage of U.S. dollars and the British shortage of Canadian dollars. The Canadian shortage of U.S. dollars during the war was successfully met by a series of measures some of which are discussed under Foreign Exchange Control. Exchange control prevented the export of capital from Canada and there were large receipts of U.S. dollars in the latter part of the war arising from sales of munitions to the United States Government arranged for under the Hyde Park Agreement. United States Government expenditures on defence in Canada and abnormally large sales of grain to the United States provided other large abnormal current receipts of dollars. Another important source leading, however, to increases in American assets in Canada arose from the inflows of capital resulting chiefly from heavy American purchases of Canadian bonds from 1942 on. Some gold and U.S. dollars were also received from the United Kingdom in certain war years in partial settlement of the British deficiencies in Canada.

The British shortage of Canadian dollars arose from the extraordinary wartime needs of the United Kingdom for Canadian munitions, food and raw materials. Canadian exports on sterling area account during the war years had a value of approximately $9 billion, whereas sterling area merchandise imported into Canada had a value of the order of $1½ billion. Various methods of financing this huge wartime movement of commodities were developed. Early in the war Britain secured Canadian dollars to cover expenditures in Canada through the official repatriations of Canadian securities held in England. By the end of 1942 virtually all of the Dominion and C.N.R. issues held in the United Kingdom had been repatriated. During the same early period and particularly in 1941 and early in 1942 the deficiency was also covered by Canada accumulating substantial amounts of sterling. The larger part of the accumulation was converted in 1942 into the Canadian dollar loan of $700 million to the Government of the United Kingdom. In the same year the Canadian Parliament appropriated $1,000 million as a gift to the United Kingdom to enable purchases of food, munitions and current requirements to be covered. After this the principal form of financial aid took the form of the Mutual Aid appropriations. Mutual Aid has totalled $2,211 million of which aid to the sterling area amounted to about $2,002 million. Prominent among other methods of financing sterling area expenditures in Canada were the sales of gold and U.S. dollars to Canada by the United Kingdom. Private repatriations of securities by Canada contributed additional sums amounting to about $340 million during the period. Among the abnormal current expenditures made by Canada were the heavy payments to the United Kingdom Government arising out of Canadian war activities overseas. These expenditures exceeded two and one-half billion dollars by the end of 1945.

During the wartime period, Canada had very large surpluses of exports of goods and services over imports. In 1946 there continued to be a substantial current surplus of $357 million, exclusive of shipments of relief. While this surplus was much smaller than during the later war years it was still considerably larger than the surpluses during the inter-war period. In 1947, however, acute balance of payments problems developed with the rapid decline in official reserves of gold and U.S. dollars, although Canada continued to have a small surplus in the current account with all countries. The principal factor contributing to the loss of reserves was the great expansion in the current deficit with the United States, at a time when a large part of the current surplus of exports to other countries was financed by loans and export credits from the Canadian Government and consequently did not yield convertible exchange.

The surplus of credits on current account with all countries, excluding contributions of official relief of $38 million, was $47 million in 1947, but no convertible exchange was received from the exports to overseas countries which were financed by export credits of $563 million. In addition there were net outflows of capital of $154 million, mainly for the redemption of Canadian securities owned abroad which also lead to drawing upon Canada's official reserves, as well as the gold subscription of $74 million by Canada to the International Monetary Fund. These combined factors lead to a loss of official reserves of $743 million during the year.

The principal changes which took place in 1947, in comparison with 1946 when there was a much smaller loss of official reserves, were the reductions in the current account surplus to $47 million from the surplus of $357 million in 1946 and the widening of the gaps in both the accounts with the United States and with overseas countries. Canada's current deficit with the United States increased from $613 million in 1946 to $1,138 million in 1947. At the same time the current surplus with overseas countries increased from $970 million to $1,185 million of which export credits and loans by the Canadian government financed $563 million. The corresponding financial aid from Canada in 1946 was $750 million. Finally, other capital movements were outward in 1947 in contrast to inward movements in 1946.

Because of the loss of official reserves remedial measures referred to elsewhere at greater length were introduced in November 1947 by the Canadian government. These were to have far reaching effects upon the Canadian balance of payments, being designed both to conserve the expenditure of U.S. dollars and to provide for increased receipts of dollars. The most extensive measures were the restrictions upon imports, taking the form of prohibitions and reductions through quotas and other means. At the same time arrangements for a credit to the Canadian government of $300 million from the Export-Import Bank of Washington to be available during 1948 were announced as a source of U.S. dollars to supplement the remaining official reserves.

The great expansion in the current deficit with the United States in 1946 and 1947 resulted from the increase in current Canadian expenditures in the United States at a time when Canada's current receipts from that country were more stable, being limited by the available production in Canada of commodities in demand in the United States. The great rise in imports was affected by unprecedentable demands, prominent among which were those arising from investment activity in Canada. Improving supplies of commodities in the United States while supplies elsewhere were subnormal, and increases in the level of prices in the United States also added to the rise in the value of imports.

Foreign Exchange Control

As the section on the balance of payments has shown Canada is particularly vulnerable to external influences. The high degree of dependence upon foreign trade, the wide extent of the disequilibrium in Canada's accounts with overseas countries and with the United States, and the large volume of non-resident investments in Canada make for a vulnerability in Canada's exchange position. Conditions arose at the outbreak of the war which made exchange control necessary for Canada, if exchange stability and an effective use of Canada's limited supplies of U.S. dollars were to be achieved.

The introduction of exchange control in the sterling countries of the British Empire, made necessary by the British shortage of United States dollars, lead to the end of free convertibility of sterling into U.S. dollars. As a result of this situation Canada was no longer able to convert income from exports to the United Kingdom and other Empire countries into U.S. dollars. In the years before the war this was the source of foreign exchange with which the country met the current account deficit in the United States. But, Canada's current account deficit with the United States was to become subject to a great expansion during the war because of the increase in Canadian requirements for U.S. dollars to cover necessary wartime expenditures in the United States. These were to rise to unprecedented levels as the economic mobilisation of Canada for war developed. It was, consequently, necessary to conserve U.S. dollars for the more essential purposes of the war as the current supply was limited to trade with the United States and with the remaining countries with convertible exchange. But, in addition to this complication arising from the inconvertibility of sterling income, there was also the necessity of safeguarding against a flight of capital from Canada. This might either take the form of withdrawals of non-resident funds invested in Canada, or the transfer of Canadian owned funds for investment abroad. It was clear that Canada would not be able to meet its essential wartime needs for U.S. dollars if the supply was not carefully conserved for essential purposes and if new sources were not found.

Exchange control was accordingly introduced September 15, 1939 in order to ensure exchange stability during the war and the most effective use of the nation's resources of foreign exchange. The Foreign Exchange Control Board was set up by order in Council under the War Measures Act. By requiring that international commercial and financial transactions be carried out under permit of the Board the Order had the effect of giving the Board control and supervision of these transactions. Authority was also given to the Board to pass regulations and to issue instructions affecting the administration of the Order and to establish the rates at which foreign exchange might be purchased and sold in Canada, subject to instructions of the Minister of Finance. The branches of chartered banks and other agencies are agents for the Board acting as authorised dealers in foreign exchange.

Following the end of the war the original legislative authority was replaced by the Foreign Exchange Control Act passed by Parliament in the summer of 1946, exchange control being continued because of uncertainties in the post-war years and the need to control exports of capital and to ensure against shortages of U.S. dollars.

It was possible, however, in the summer of 1946 to restore the Canadian dollar to its pre-war parity with the U.S. dollar. The return to par was announced by the Minister of Finance on the evening of July 5, 1946 as part of a new price stabilisation policy in Canada. The rate change accompanied a number of price control measures designed to safeguard against the increases in prices in the United States and elsewhere. Since the announcement, the official rates for buying and selling foreign exchange for spot transactions are:—

UNITED STATES DOLLARS—
Buying — Par
Selling — ½ per cent Premium

POUNDS STERLING—
Buying — $4·02
Selling — $4·04

Prior to this return to parity the buying rates introduced September 16, 1939 were a premium of 1½ per cent for U.S. dollars and $4·43 for pounds sterling. The selling rates, originally established at the same time were a premium of 11 per cent on U.S. dollars and $4·47 for pounds sterling, had been changed on October 15, 1945 to a 10½ per cent premium on U.S. dollars and $4·45 for pounds sterling.

In the control which was developed during the war there became a sharp distinction between the two currency areas, the U.S. dollar area with which there was a Canadian shortage of U.S. funds, and the sterling area which had a shortage of Canadian dollars in connection with which special measures had to be developed by the Canadian government in order to finance the large British expenditures in Canada for food, raw materials and war supplies.

The principal form which exchange control took was the control of exports of capital from Canada to the U.S. dollar area. With the exception of contractual payments in U.S. dollars, such as those arising from the redemption of Canadian securities and other debts, exports of capital from Canada in this currency were prohibited, although some other withdrawals of capital are permitted in Canadian dollars which may be sold in the free exchange market outside of Canada. It was also necessary for the government to introduce measures restricting expenditures by Canadians on travel involving U.S. dollars in July, 1940 when expenditures on pleasure travel were prohibited.

As the shortage of U.S. dollars was alleviated in the later years of the war because of special receipts from such sources as have been noted below, and in the section on the balance payments, some modifications of control were introduced permitting certain exports of capital by Canadian businesses to the United States for purposes of business development as well as the protection of existing investments abroad. The restrictions upon pleasure travel were also progressively reduced in 1944 and 1945, expenditures of reasonable amounts being permitted after May, 1945. These were again reintroduced in November, 1947 as part of the government measures dealing with the loss of official reserves.

As a result of the above changes for a period following the end of the war, there were no exchange restrictions upon normal current transactions by Canadians although these transactions continued to be subject to scrutiny because of the necessity of maintaining a comprehensive system of exchange control. But during 1947 various changes were made in the Regulations under the Foreign Exchange Control Act, generally in the direction of tightening the control, as a result of the severe losses of exchange. The major steps taken by the Canadian Government in dealing with the exchange losses in 1947, however, were measures of Government policy rather than exchange control measures.

The guiding principle being the control of security transactions is that Canada's resources of U.S. dollars may not be used to increase the holdings of foreign securities by residents of Canada or to reduce non-residents holdings below the amounts of holdings at the introduction of exchange control. A considerable amount of freedom is permitted, however, in switching security holdings so long as no export of capital results from the transactions on balance. Residents of the U.S. dollar area are not usually permitted to sell securities in Canada unless the proceeds are re-invested in other Canadian domestic securities or unless the securities were purchased outright in Canada by the non-resident after the introduction of exchange control and the purchase was registered with the Foreign Exchange Control Board. Purchasers of securities which were registered may obtain permission normally to sell the securities in Canada and to withdraw the proceeds by selling Canadian dollars in the free exchange market outside of Canada. The privilege of registering Canadian bonds was withdrawn, however, in January, 1946, although Canadian stocks may still be registered. Unregistered securities may of course be sold by non-residents in security markets outside of Canada to other non-residents.

Capital exports to the sterling area and other Canadian expenditures there are freely allowed although in the case of sales of securities in Canada by sterling area residents permits are required to ensure that the proceeds accrue to the sterling area control. The latter control regulates payments from the sterling area to Canada and limits payments to Canada for capital purposes.

TABLE I

CANADA'S HOLDINGS OF GOLD AND U.S. DOLLARS

(In millions of U.S. dollars)

	F.E.C.B. (and Bank of Canada)	*Dominion Government*	*Private*[1]	*Total*
Sept. 15, 1939	238·7	22·4	132	393·1
Dec. 31, 1939	272·8	33·4	98	404·2
Dec. 31, 1940	309·3	20·8	2	332·1
Dec. 31, 1941	164·1	23·5	—	187·6
Dec. 31, 1942	242·9	75·6	—	318·5
Dec. 31, 1943	573·2	76·4	—	649·6
Dec. 31, 1944	800·1	102·1	—	902·2
Dec. 31, 1945	1,275·9	232·1	—	1,508·0
Dec. 31, 1946	1,222·3	22·6	—	1,244·9
Dec. 31, 1947	458·4	43·3	—	501·7

[1] Exclusive of working balances

Changes which have taken place in Canada's holdings of gold and U.S. dollars during the war are shown in Table I. Holdings which were $393·1 million on September 15, 1939 declined to $187·6 million by the end of 1941 and rose each succeeding year to a total of $1,508·0 million at the end of 1945. The relation between this increase of $1,115 million in liquid reserves and the other principal wartime changes in Canada's debtor position vis-a-vis the U.S. dollar area are shown in Table II. This change in short-term position was largely offset by changes in the other direction in Canada's long-term position. Mainly offsetting this increase in cash assets were increases in Canada's external liabilities of $735 million and decreases in other forms of U.S. dollar assets held by Canadians of $368 million. In both cases capital inflows from security sales to the United States were the major components of the changes in longer-term position. Also contributing to the improvement in cash position in the latter years of the war were large non-recurring receipts from various current sources such as sales of munitions to the U.S. Government, exports of grain to the United States and expenditures by the U.S. Government on defence in Canada. Some gold and U.S. dollars were also received from the United Kingdom in partial settlement of the British deficiency in Canada, but most of this was received in the early years of the war.

TABLE II

SUMMARY OF CANADA'S INTERNATIONAL ACCOUNTS CALENDAR YEAR, 1947

(Millions of Dollars)

	All Countries	*United Kingdom and £ Area*	*Other Overseas Countries*	*United*[1] *States*
Current Account				
Current Balance (Including Official Relief)	+85	+872	+351	−1,138
Contributions of Official Relief ..	−38	—	−38	—
Current Balances (Excluding Official Relief)	+47	+872	+313	−1,138
Capital Account				
Loan to the U.K. and Net Export Credits	−563	−423	−140	—
Other Capital Movements[2] ..	−154	+53	−44	−163
Gold Subscription to International Monetary Fund	−74	—	—	−74[4]
Net Receipts of Convertible exchange from overseas	—	−505	−133	+638
Balancing item[3]	+1	+3	+4	−6
Decline in Official Liquid Reserves	+743	—	—	+743
	−47	−872	−313	+1,138

[1] Including some capital transactions on account of other overseas countries. [2] Including currency adjustments. [3] The balancing item reflects errors and omissions. [4] Although it does not represent a transaction with the United States, the Gold Subscription to the International Monetary Fund is included in the United States account, for brevity, as it was made in gold and consequently reduced official reserves.

TABLE III

CURRENT ACCOUNT OF THE CANADIAN BALANCE OF INTERNATIONAL PAYMENTS

Revised Statement for 1945

(Millions of dollars)

	All Countries	*United Kingdom*	*Other Sterling Area*	*United States*	*All Other Countries*
(a). **Current Receipts**					
Merchandise exports (adjusted)	3,474	1,422	354	1,134	564
Net exports of non-monetary gold	96	—	—	96	—
Tourist expenditures ..	165	2	[1]	163	[1]
Interest and dividends ..	76	4	4	44	24
Freight and shipping ..	340	145	38	134	23
War Services	81	65	16	—	—
All other Current Receipts ..	220	35	3	169	13
Total Current Receipts ..	4,452	1,673	415	1,740	624
(b). **Current Payments**					
Merchandise imports (adjusted)	1,442	100	113	1,119	110
Tourist expenditures ..	83	2	[1]	81	[1]
Interest and dividends ..	251	53	1	192	5
Freight and shipping ..	222	30	4	188	[2]
Canadian Overseas Expenditures	721	696	—	—	25
All Other Current Payments	191	45	2	128	16
Total Current Payments ..	2,910	926	120	1,708	156
(c). **Current Account Balance**	+1,542	+747	+295	+32	+468
Mutual Aid and Official Relief	−858	−596	−64		−198
(d). **Net Balance on Current Account** (Excluding Mutual Aid and Official Relief) ..	+684	+151	+231	+32	+270

[1] Less than $500,000. [2] Included in amount shown for United States.

TABLE IV

CURRENT ACCOUNT OF THE CANADIAN BALANCE OF INTERNATIONAL PAYMENTS

Revised Statement for 1946 *and Preliminary Estimates for* 1947
(Millions of dollars)

	All Countries		*United Kingdom*		*Other Sterling Area*		*United States*		*All Other Countries*	
	1946	1947	1946	1947	1946	1947	1946	1947	1946	1947
(a). Current Receipts										
Merchandise exports (adjusted) ..	2,338	2,710	626	750	269	366	893	1,046	550	548
Receipts by War Supplies Ltd. ..	55	13	—	—	—	—	55	13	—	—
Net exports of non-monetary gold ..	96	99	—	—	—	—	96	99	—	—
Tourist expenditures..	221	245	3	7	1	1	216	235	1	2
Interest and dividends	64	62	7	7	2	5	41	36	14	14
Freight and shipping	311	321	107	115	34	38	101	102	69	66
Inheritances and immigrants funds ..	65	69	45	47	—	1	19	18	1	3
All Other Current Receipts ..	209	214	52	42	3	3	140	147	14	22
Total Current Receipts ..	3,359	3,733	840[4]	968[4]	309[1,4]	414[4]	1,561	1,696	649[2]	655[3]
(b). Current Payments										
Merchandise imports (adjusted) ..	1,822	2,535	138	182	129	160	1,378	1,951	177	242
Tourist expenditures..	135	167	3	9	1	3	130	152	1	3
Interest and dividends	312	335	54	51	1	1	250	274	7	9
Freight and shipping	219	275	32	36	6	5	169	217	12	17
War expenditures	127	—	73	—	—	—	23	—	31	—
Inheritances and emigrants funds ..	34	49	2	8	—	—	31	37	1	4
All Other Current Payments ..	256	287	38	50	3	5	193	203	22	29
Total Current Payments ..	2,905	3,648	340	336	140	174	2,174	2,834	251	304
(c). Current Account Balance	+454	+85	+500	+632	+169	+240	—613	—1,138	+398	+351
Contributions of Official Relief ..	−97	−38	—	—	−5	—	—	—	−92	−38
(d). Net Balance on Current Account (Excluding Official Relief)	+357	+47	+500	+632	+164	+240	−613	−1,138	+306	+313

[1] Including Mutual Aid of $5 mm.

[2] Including contributions of official relief of $92 mm. and trade financed by Net Export Credits and advances of $210 mm.

[3] Including contribution of official relief of $38 mm. and trade financed by Net Export Credits and advances of $140 mm.

[4] Credits with sterling area countries include trade financed by drawings of $540 mm. in 1946 and $423 mm. in 1947 on the Canadian Loan to the United Kingdom.

TABLE V

TRANSACTIONS BETWEEN CANADA AND ALL COUNTRIES, 1937-1947

(Millions of Canadian dollars)

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947[1]
(a.) Current Credits—with All Countries											
Merchandise exports (adjusted)	1,041	844	906	1,202	1,732	2,515	3,050	3,590	3,474	2,393	2,723
Net exports of non-monetary gold.. ..	145	161	184	203	204	184	142	110	96	96	99
Tourist and travel expenditures	166	149	149	104	111	81	88	119	165	221	245
Interest and dividends	76	66	57	52	60	67	59	71	76	64	62
Freight and shipping	112	95	102	138	185	221	288	322	340	311	321
All other current credits	53	46	59	77	166	308	437	345	301	274	283
Total Current Credits ..	1,593	1,361	1,457	1,776	2,458	3,376	4,064	4,557	4,452	3,359	3,733
(b). Current Debits—with All Countries											
Merchandise imports (adjusted)	776	649	713	1,006	1,264	1,406	1,579	1,398	1,442	1,822	2,535
Tourist and travel expenditures	87	86	81	43	21	26	36	58	83	135	167
Interest and dividends	302	307	306	313	286	270	261	264	251	312	335
Freight and shipping	137	105	119	132	167	228	294	252	222	219	275
Canadian Overseas Expenditures	—	—	—	29	97	191	499	1,085	721	104	—
All other current debits	111	114	112	104	132	154	189	482	191	313	336
Total Current Debits ..	1,413	1,261	1,331	1,627	1,967	2,275	2,858	3,539	2,910	2,905	3,648
(c). Net Balances—with All Countries											
Merchandise trade (adjusted)	+265	+195	+193	+196	+468	+1,109	+1,471	+2,192	+2,032	+571	+188
Net exports of non-monetary gold ..	+145	+161	+184	+203	+204	+184	+142	+110	+96	+96	+99
Tourist and travel expenditures	+79	+63	+68	+61	+90	+55	+52	+61	+82	+86	+78
Interest and dividends	−226	−241	−249	−261	−226	−203	−202	−193	−175	−248	−273
Freight and shipping	−25	−10	−17	+6	+18	−7	−6	+70	+118	+92	+46
All other current transactions	−58	−68	−53	−56	−63	−37	−251	−1,222	−611	−143	−53
Total Current Account (including contributions) ..	+180	+100	+126	+149	+491	+1,101	+1,206	+1,018	1,542	+454	+85
Capital Account (Net)	−172	−106	−136	−188	−497	−106	−677	−48	−689	−361	−48
Mutual Aid and 1942 Contribution	—	—	—	—	—	−1,000	−512	−936	−748[2]	−15	—
Contributions to U.N.R.R.A.	—	—	—	—	—	—	—	−11	−34	−68	−38
Military and Other Relief	—	—	—	—	—	−2	−6	−13	−76	−14	—
Balancing Item[3]	−8	+6	+10	+39	+6	+7	−11	−10	+5	+4	+1
	−180	−100	−126	−149	−491	−1,101	−1,206	—1,018	−1,542	−454	−85

[1] Subject to revision.

[2] Preliminary figures originally issued by the Mutual Aid Board have been revised.

[3] This balancing item reflects possible errors and the omission of certain factors which cannot be measured statistically.

TABLE VI

SUMMARY OF CURRENT AND CAPITAL TRANSACTIONS BETWEEN CANADA AND EMPIRE COUNTRIES, (1) 1937-1947

(Millions of dollars)

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947[2]
Current Account											
Gross Credits	565	508	502	822	1,321	1,826	2,066	2,307	2,088	1,149	1,382
Gross Debits	406	337	326	403	516	557	850	1,428	1,046	480	510
Current Balance (Including Mutual Aid)	+159	+171	+176	+419	+805	+1,269	+1,216	+879	+1,042	+669	+872
Capital Account											
Capital Debits or Credits (+)											
(a) Private transactions											
Redemptions of securities	26	21	45	13	10	30	10	32	31	76	41
Net repurchases of securities	+20	12	5	28	36	8	26	27	41	54	9
Other Capital (net)	18	20	+42	54	4	13	33	+61	16	+32	+9
(b) Official transactions											
Repatriation of securities	—	—	75	137	188	296	4	2	1	1	—
War Loan to United Kingdom	—	—	—	—	—	700	+18	+57	+64	+89	+104
Post-war Loan to United Kingdom	—	—	—	—	—	—	—	—	—	540	423
Interim advances[3]	—	—	—	—	—	—	—	—	209	112	—
Financial settlement by United Kingdom	—	—	—	—	—	—	—	—	—	+150	
Investment in fixed production assets	—	—	—	+100	+157	+58	205	2	—	—	—
Change in £ balances (decrease —)	—	—	—	82	728	+818	—	+4	1	+15	1
Special payments and adjustments	—	—	—	—	—	74	306[4]	57	115	18	9
Net Capital Movements as above	−24	−53	−83	−214	−809	−245	−566	+2	−350	−515	−370
Mutual Aid and 1942 Contribution	—	—	—	—	—	−1,000	−503	−834	−660	—5	—
Special Receipts of Convertible exchange[5]	—	—	−2	−248	—	−23	−143	−55	−33	−150	−505
Balancing item[6]	[6]	[6]	[6]	+43	+4	−1	−4	+8	+1	+1	+3
				−419	−805	−1,269	−1,216	−879	−1,042	−669	−872

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[1] Transactions with the sterling area are covered from 1940-1947. [2] Subject to revision.
[3] Most of these advances were cancelled in the Financial Settlement with the United Kingdom. [4] Including 190 repayment of working capital. [5] This represents gold and U.S. dollars received from the U.K. in part settlement of her deficiency with Canada, and used in turn to settle part of Canada's deficiency with the United States. [6] Reflecting multilateral settlements up to introduction of exchange control, and thereafter, errors and omissions.

TABLE VII

SUMMARY OF CURRENT AND CAPITAL TRANSACTIONS BETWEEN CANADA AND NON-EMPIRE COUNTRIES, 1937-1947

(Millions of dollars)

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947[1]
Current Account											
Gross Credits	1,028	853	955	954	1,137	1,550	1,998	2,250	2,364	2,210	2,346
Gross Debits	1,007	924	1,005	1,224	1,451	1,718	2,008	2,111	1,864	2,425	3,133
Current Surplus (+) or Deficit (−)	+21	−71	−50	−270	−314	−168	−10	+139	+500	−215	−787
Capital Account											
New issues of Canadian Securities	86	38	155	—	—	—	146	92	91	215	87
Retirements of Canadian Securities	140	79	131	41	31	25	308	166	179	453	318
Net new issues (+) or New retirements (−)	−54	−41	+24	−41	−31[2]	−25[2]	−162	−74	−88	−238	−231
Net Sales (+) or Net Purchases (−) of Outstanding Securities											
Canadian Securities	−18	+48	+69	+15	+46	+132	+254	+183	+300	+210	−9
U.S. and Foreign Securities	−7[3]	−7[3]	+18[3]	+18	+28	+24	+44	+42	+96	+64	+13
Net Change in Liquid Reserves of Gold and U.S. $ (Decline (+) Increase (−)				+79	+160	−144	−364	−278	−667	+251	+743
Export Credits and Interim Advances	—	—	—	—	—	—	—	—	−105	−210	−140
Other Capital Movements and Adjusting Entries (net)	−69	−59	−164	−45	+109	+152	+117	+77	+125	+77	−54[4]
Net Capital Movements Above	−148	−59	−53	+26	+312	+139	−111	−50	−339	+154	+322
Mutual Aid	—	—	—	—	—	—	—9	−102	−88	−10	—
Contribution to U.N.R.R.A. and Post-U.N.R.R.A.	—	—	—	—	—	—	—	−11	−34	−68	−38
Military and Other relief	—	—	—	—	—	—2	—6	−13	−76	−14	—
Special Receipts of Convertible exchange[5]			+2	+248	—	+23	+143	+55	+33	+150	+505
Balancing item[6]	[6]	[6]	[6]	−4	+2	+8	−7	−18	+4	+3	−2
				+270	+314	+168	+10	−139	−500	+215	+787

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[1] Subject to revision. [2] Excluding refunding issues. [3] Available data included in other captal movements. [4] Includes the gold subscription of $74 million to the International Monetary Fund as it reduced official reserves. [5] This represents gold and U.S. dollars received from the U.K. in part settlement of her deficiency with Canada, and used in turn to settle part of Canada's deficiency with the United States. [6] Reflecting multilateral settlements up to introduction of exchange control, and thereafter, errors and omissions.

CURRENCY AND BANKING

ONE of the major functions of the early banks was to issue promissory notes payable on demand and until the formation of a central bank in 1935 the note circulation of the chartered or commercial banks formed the chief currency in general public use. Chartered bank notes were not legal tender but were convertible into Dominion Notes which were legal tender.

At Confederation jurisdiction over matters of currency passed to the Federal Government which began to issue Dominion Notes—these notes were legal tender and were partly a fiduciary issue and in part backed by gold. They were issued at one time or another in denominations of 25 cents, $1, $2, $4, $5, $50, $500, $1,000 and special notes for inter-bank settlement use which were usually $5,000 or $50,000 denominations. Because of the fact that chartered bank notes were issued only in multiples of $5 denominations, Dominion $1 and $2 notes were the denominations in chief demand by the general public. Dominion notes, particularly the larger denominations, formed a large part of the chartered banks' cash reserves in Canada.

When the central bank opened for business in 1935, it assumed the liability for Dominion notes outstanding while under the provisions of the Bank Act of 1934 the note issue privilege of the chartered banks was gradually retired over a ten-year period to a maximum amount of 25 per cent of banks' paid-up capital. By 1944 almost all the notes in circulation in Canada were those of the central bank and on the occasion of the Bank Act revision in 1944 provision was made for the complete withdrawal of the chartered banks' note issue privilege in Canada. Bank of Canada notes are issued in denominations of $1, $2, $5, $10, $20, $50, $100, $1,000.

Canadian subsidiary coins are minted at the Royal Mint, a branch of the Finance Department, in denominations of 1 cent, 5, 10, 25 and, 50 cents and $1. Gold coins have not been in general circulation for many years and none have been minted since 1919.

Central Bank

Largely because of deflationary monetary conditions during the early 1930's the Dominion Government appointed the MacMillan Commission to survey the Canadian banking system and the majority report of this Commission in 1933 recommended that a central bank be established. The Bank of Canada Act was passed in 1934 and the Bank of Canada opened for business on March 11, 1935.

The Bank of Canada's capital stock was at first held by the general public. In 1936 the capital stock of the Bank was increased from $5 millions to $10,100,000 with the additional $5,100,000 capital stock going to the Government, thus giving it 51 per cent ownership. Again, in 1938, the Bank of Canada Act was further amended to provide for eliminating the general public shareholders and the Bank was left with a capital stock of $5 millions, all held by the Dominion Government.

The Bank of Canada has eleven directors, a Governor, Deputy Governor and Assistant Deputy Governor appointed by the Government. The Head Office of the Bank is in Ottawa and there is an agency in each province. Presently the whole amount of the Bank's net income is transferred to the Government. The Industrial Development Bank is a wholly-owned susbidiary of the Bank of Canada.

The Bank of Canada Act empowers the Bank to receive deposits from the Dominion Government, provincial governments, chartered banks or any bank incorporated under the Quebec Savings Bank Act; deposits from the general public are not accepted. Advances may be made to the Dominion Government, any provincial government, chartered banks or banks incorporated under the Quebec Savings Bank Act. Unlike the situation in some countries it is not usual for the chartered or commercial banks to have advances from the Bank of Canada; such advances have been obtained on relatively few occasions for rather small amounts and have been retired in a short period of time. The Bank of Canada acts as the fiscal agent of the Dominion Government. At the time of its establishment the Bank of Canada acquired the gold reserve of the Dominion Government against Dominion notes and the gold reserve in Canada of the chartered banks which made it the only holder of monetary gold reserves in Canada. Until 1940 the Bank maintained gold reserves substantially in excess of the requirement in the Bank of Canada Act that it must keep not less than 25 per cent of its note and deposit liabilities in the form of gold. On May 1, 1940, Canada's foreign exchange reserves were centralised in the Foreign Exchange Control Board which had been made responsible for wartime regulation of Canada's external financial situation and the Bank's minimum gold reserve requirement was suspended and its gold reserve sold to the Board. Since that time nearly all the assets of the Bank have been in the form of Government securities. The chartered banks are required to keep not less than five per cent of their Canadian deposit liabilities in notes of the Bank of Canada or deposits with the Bank of Canada. However, custom rather than law has determined the cash reserve policy of the chartered banks which as a group normally keep ten per cent or more of their deposits in the form of cash. The statutory five per cent reserve provision insures that no individual bank's cash reserve can go to a dangerously low point. Broadly speaking, Bank of Canada policy since its establishment in 1935 has been to encourage monetary expansion by means of open market security transactions. Until 1939 and the outbreak of war this credit expansion was facilitated as a means of offsetting the deflation in the volume of money which occurred in the early 1930's and of keeping the commercial banks in a liquid cash reserve position in view of the rather depressed economic conditions of the times. During World War II Dominion Government expenditure exceeded the amounts which were raised from taxation and public borrowing with the result that a substantial amount of Government borrowing from the banks was necessary with a consequent degree of monetary expansion supported by increases in commercial banks' cash reserves through central bank action.

Canada had almost no short term money market until after the establishment of the central bank. After 1935 a Dominion Treasury Bill market developed in Canada. The Bank of Canada and the commercial banks are the most active investors in these Treasury Bills although the general public market has been of some importance at certain times.

BANK OF CANADA PRINCIPAL ASSETS AND LIABILITIES

(Millions of dollars)

Date	Liabilities				Assets				
	Note Circulation		*Deposits*		*Capital and Rest Fund*	*Gold Reserve*	*Foreign Exchange*	*Govt. Secs.*	*Total Assets*
	Held by Public	*Held by Banks*	*By Banks*	*By Govt.*					
March 13, 1935 ..	40	57	152	4	5	107	—	150	259
December 31, 1939 ..	162	71	217	47	7	226	64	232	527
December 31, 1940 ..	262	98	218	13	9	—	38	576	627
December 31, 1941 ..	380	116	232	78	11	—	201	609	843
December 31, 1942 ..	573	121	260	60	11	—	1	1,016	1,048
December 31, 1943 ..	752	123	340	35	13	—	1	1,260	1,308
December 31, 1944 ..	897	139	402	31	15	—	172	1,491	1,687
December 31, 1945 ..	966	163	521	176	15	—	157	1,856	2,032
December 31, 1946 ..	1,009	177	565	81	15	—	1	1,921	1,949
December 31, 1947 ..	1,028	184	536	88	15	—	—	1,906	1,926

Commercial Banks

At the present time there are ten chartered or commercial banks and, with the exception of one very small bank, all were established before 1875. The number of bank failures has never been very large and there has been none since 1924. The banks are given ten-year charters under The Bank Act and the occasion for the renewals of such charters every ten years has been marked by a thorough study of the banking system by Parliament.

Canadian chartered banks hold most of the public's savings deposits. With rather few exceptions these savings accounts are not fixed term deposits and the normal requirement of notice of withdrawal is not in practice enforced. Demand deposits with the chartered banks are chiefly those of non-individuals so far as the total amount is concerned. The chartered banks hold part of the Dominion Government balances and the balances of the provincial governments. Inter-bank deposits are of no particular importance in Canada.

The clearing house system consists of 33 clearing house centres which include all the more important bank points where several or all of the banks have branches. Four clearing house centres act as settlement points for the other clearing house centres and most clearing transactions are settled daily at the Bank of Canada.

Since the chartered banks are not allowed to make loans on the security of real property ordinarily they do not loan money for a term of more than one year. A substantial part of the banks' advances arises out of financing the storage and movement of grain crops. Industrial and commercial borrowings also form a considerable part of their loans. There is no well-developed call money

CHARTERED BANKS PRINCIPAL ASSETS AND LIABILITIES

(Millions of dollars)

Dec. 31	Liabilities			Assets			
	Note Circulation	*Canadian Deposits*	*Capital and Reserve Fund*	*Cash in Canada*[2]	*Government Securities*[3]	*Canadian Loans*	*Total Assets*[4]
1870	19	54	34[1]	14	5	76	111
1880	27	90	60[1]	16	1	120	193
1890	35	140	82	16	2	199	260
1900	51	308	102	32	12	313	502
1910	88	861	184	109	13	743	1,230
1920	229	1,993	261	353	120	1,485	3,057
1930	148	2,128	307	207	409	1,480	3,142
1939	90	2,850	279	288	1,353	1,141	3,822
1940	84	2,805	279	316	1,288	1,148	3,731
1941	73	3,108	280	348	1,516	1,201	4,137
1942	62	3,608	282	381	2,001	1,199	4,767
1943	43	4,356	282	463	2,627	1,205	5,609
1944	34	5,145	282	541	3,229	1,303	6,459
1945	26	5,949	282	684	3,587	1,526	7,353
1946	21	6,295	322	742	3,634	1,643	7,799
1947	18	6,473	327	720	3,116	2,104	7,974

[1] Capital only, amount of reserve fund not known.

[2] Specie and Dominion notes until 1930; Bank of Canada notes and deposits thereafter.

[3] Dominion and provincial government securities.

[4] Including both foreign and Canadian assets.

market in Canada but the chartered banks do a considerable volume of lending for the purpose of carrying marketable securities. Loans are also made to provincial and municipal government bodies. In the Bank Act Revision of 1944, the Government provided for its guarantee of intermediate term farm credits.

At one time the great part of chartered banks' assets was employed in loans and only a small percentage of their Canadian deposits was invested in Government securities. By the end of 1947, however, 48 per cent of banks' Canadian deposits were invested in Government securities, of which the great part were acquired during World War II.

THE CANADIAN LABOUR FORCE

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THE Canadian labour force consists of the " gainfully occupied," meaning all who assist in the production of marketable goods or services. According to the census definition, the term excludes wives and daughters engaged in the domestic work of the home without pay, but includes children 14 years of age and over assisting parents in the work of the farm or in some family business in a " no-pay " capacity. The gainfully occupied are divided into (1) those working on their own account (the self-employed) and (2) the " wage earners," meaning all those working under contract for wage or salary, including those who are unemployed but are nevertheless in the market. In addition to the gainfully occupied are the " non-worker " elements, mostly female, who are available under conditions.

Distribution by Automatic Forces

Flexibility among these categories requires some emphasis. During the 1920's, while the population of Canada increased by about 17 per cent, the gainfully occupied increased by 23 per cent. Within the latter, moreover, the wage earners, under the stimulus of the boom of 1927-29, increased by nearly 30 per cent, their ranks being swelled by an influx of the self-employed from farms and elsewhere. During 1930-36 this current was reversed, many leaving the country, but others (perhaps 300,000) returning to vocations mainly in primary industry at a reduced standard of living.

World War II brought these workers out again, some to join with city people to form the 740,000 of the armed services, but more to swell the ranks engaged in war production and civilian industry. On April 1, 1939, only 22 per cent of Canada's population 10 years of age or over was employed in non-agricultural civilian industry. On April 1, 1943, the proportion was estimated at 40 per cent, including those in the armed services[1]. On June 1, 1941, the date of the last census, the gainfully occupied in Canada plus those in active service abroad totalled 4,512,535. During the next three years, by accretion of maturing population and by transfers, this figure mounted to more than five million. This may be regarded as the utmost potential for the nation's working force. That it would shrink was expected, and shrink it did, during the next year and a half, by some 290,000[2].

In considering the war and postwar labour market it is well to keep these over-all figures in mind. While thousands never sell their services, being " own-account " workers and employers of labour, many others will, under certain conditions, become workers for hire, the line between the two classes being, as above emphasised, not fixed but flexible. It changes according to season; it varies with technological and cultural change; but most of all it varies with prosperity and depression and with conditions of war and peace. In Canada this flexibility, resting on individual choice, has been until recent times the greatest single dependence for adjusting a rising market.

Distributing and Stabilising by Government Agencies

But while these automatic forces still obtain in the Canadian economy, their power is decreasing. During the early thirties, while individual adjustments were made to falling employment, it was not without hardship, disorganisation, and loss in morale. Numbers (reaching in 1933 to 1·25 million) were kept on relief at great cost over a period of years. In the early stages of the depression, other large amounts, at times as much as $100 million annually, were spent on public works.

Reacting to these evidences of inadequacy, the Dominion Government, overcoming constitutional difficulties, passed in 1940 an Unemployment Insurance Act which at the close of 1946 had built up a fund of $360 million. By the same act the Government took over the employment service, theretofore provincial, and today operates it through more than 200 offices with a staff of 8,500. Unlike the United States, Canada combines the employment service and insurance fund administration under a single commission, thus associating claims for unemployment insurance with the work record of the claimant, who must be registered for the acceptance of proper employment when offered.

On the informational side, in addition to data gathered by the National Employment Service, the Dominion Bureau of Statistics (which takes the basic Census of Population and the annual Industrial Census) collects monthly figures of employment from firms employing more than fifteen persons, and since 1945 makes a quarterly sample estimate of the entire labour force. The Research and Statistics Branch of the Department of Labour analyses these and other materials monthly. Thus the responsible authorities are moving with much more light than formerly, at the same time accumulating social insurance funds, paying out veterans' and children's allowances, and so forth, against the recurrence of a downswing. In the postwar period the " Department of Reconstruction " has been added to the other instruments of Government dealing with employment.

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[1] *Changes in Population in the Labour Forces*, Ottawa: Department of Labour, 1941.

[2] 1946 Report of the Bank of Canada, p. 19.

National Selective Service, 1942-45

During 1942 the National Employment Service was re-created as the National Selective Service and clothed with positive powers. In the two and a half years of war up to that time, the unemployed had been absorbed, armies of women had come into industry, special schools for rapid single-product training had been brought into operation, the farms had been stripped of manpower through recruiting and the appeal of factory employment—all culminating in the optimum war contribution of the nation. Wage ceilings had been operative since December 1940, and price controls since November 1941. The normal operation of the price system as the main reliance in the distribution of manpower was thus suspended.

At this stage the new Selective Service was deliberately turned into an agency to accomplish the greatest possible production of goods essential to war. Labour bottlenecks, labour absenteeism, and slowdowns by management had to be overcome. Among the Service's weapons of positive control were: (1) gradation of industries according to essentiality; (2) requirement of permission to leave or to dismiss in essential industries; (3) requirement of seven days' notice before change of employment; (4) " freezing " of workers in agriculture, coal mining, and school teaching; (5) compulsory transfer orders from less essential industries to war plants; (6) registration of workers between 16 and 40 years of age in non-essential industries, preparatory to transfer; and (7) disallowance of idleness.

Transition to Peace

From the closing months of the war to the present, three main requirements have dominated the situation: (1) the transfer of 750,000 people from the armed services to civilian life, (2) the claims of the home and family as against those of the factory, and (3) the transfer of hundreds of thousands from the expanded war industries back to normal peacetime production.

For this postwar redistribution of manpower the Government has resorted very little to the interference with personal liberty that characterised the building up of the military and industrial war machine. The National Selective Service was shorn of much of its positive powers on May 17, 1945, directly after V-E Day, and on September 17 the controls were further relaxed. In December 1945 the National Selective Service was reconstituted the National Employment Service, the latter resuming for the most part its broker's function, in association with the sister service administering unemployment insurance. The only positive controls remaining were the following: (1) Employers were required to notify the Service of all vacancies and report all additions to staff. (2) Unemployed workers were required to register with the Service. (3) Either party contemplating termination of employment must give seven days' notice. Aside from these restrictions, the National Employment Service has to commend itself to both employer and worker on the basis of service offered. The prohibition to leave the country without permit, initiated early in the war, was lifted in February 1947.

The bulk of the armed forces (some 685,000) received their discharge between July 1, 1945 and August 31, 1946—an average of nearly 50,000 a month. Thereafter the monthly number dropped to 10,000 and tapered rapidly. Dischargees had a prior claim to the jobs they had vacated, and they were given the privilege of seeking and taking jobs for themselves without use of the Employment Service. Employers hiring them, however, were required to notify the local office of the National Employment Service, the record being necessary for calculating eligibility for unemployment insurance as well as for information concerning the current condition of the labour market.

Not all discharged persons immediately sought civilian employment. How many chose a period of vacation and for what length of time is not on record. There is reason to think, however, that in the total this was an important factor in easing the transfer to civilian occupations, particularly as affecting the long-service early-returning men during the late summer and fall of 1945.

Others took advantage of the Government's liberal offer of financial support for purposes of further education. As of February 1947, nearly 20,000 veterans had graduated from technical, commercial, or academic tutorial courses in the province of Ontario alone. Others, more advanced educationally, turned to the universities, 24,500 enrolling in regular courses during the 1945-46 session and 35,000 during 1946-47. This last, of course, has been a temporary disposition only, since at the close of the educational period such students stand as applicants for positions.

Readjustment to the peace economy again has gone forward rapidly through the voluntary withdrawal of large numbers to callings in the non-worker class—mainly women leaving industry and the armed forces to assume or reassume the homemaker role. Of the total workers in the nine leading industrial groups (excluding agriculture) in the fall of 1944, more than 27 per cent were women. This contrasts with 23·5 per cent two years earlier and with 22·8 per cent to which it had fallen by November 1946. This wholesale withdrawal seems to have taken place rapidly with the cancellation of war orders around V-J Day, and was a wholesome aid in cushioning the rest of the human reconversion in those difficult weeks from June to November 1945.

Finally, there has been the great shifting of workers between industries. Before describing this, however, it will be well to view the over-all accomplishment in its broader terms.

Over-All Accomplishment

The over-all reconversion accomplishment may be seen from Table I.

TABLE I
OCCUPATIONAL DISTRIBUTION OF POPULATION AGE 14 AND OVER
(In thousands)

	April 1945	*November* 1946
Armed services	740	50
Employees in war industry ..	900	0
Employees in civilian industry ..	1,910	3,150
Employers and self-employed ..	440	510
Agriculture—males only ..	1,010	960
Total number at work ..	5,000	4,670
Unemployed	80	120
Students	460	590
Homemakers	3,410	3,780
Total ..	8,950	9,160

SOURCE: Estimated in a report of the Bank of Canada.

It will be observed that of the total of 3,550,000 in the first three groups (those employed under contract) as they stood a month before V-E Day, 3,150,000 were accounted for in November 1946 by civilian industry, representing an increase of 1,240,000 in that category. The greater part of those in the first two groups who were not found in civilian industry in November 1946 are accounted for by the increase between the two dates in "Homemakers," meaning mostly that 370,000 females withdrew from industry with the return of peace or did not take gainful employment as they were discharged from the armed forces. Lesser features were the 130,000 increase in students presumably under the stimulus of governmental scholarships for veterans, and the 50,000 remaining in the defence forces. Agriculture alone of the peacetime pursuits registered a drop in the seventeen months, a circumstance largely seasonal, but nevertheless remarkable, since agriculture had already suffered a fall of 200,000 during the war.

Unemployment in Canada during the summer and fall of 1946 according to estimates based on four sample surveys by the Bureau of Statistics remained 2·5 per cent of the total labour force. In February 1946 it had stood at 4·7 per cent. Interestingly enough, unemployment decreased somewhat in the early fall even while the civilian labour force decreased by 130,000, the explanation being found in the great numbers joining the ranks of "non-workers" notably to pursue education or to "keep house."

TABLE II
POSTWAR DISTRIBUTION OF WORKERS
(In thousands)

Industry	WEEK ENDING		
	Nov. 17 1945	*June* 1 1946	*Nov.* 9 1946
Agriculture	1,056	1,274	1,071
Forestry, Fishing, and Trapping	111	70	159
Mining	69	68	64
Manufacturing	1,191	1,256	1,299
Construction	184	241	244
Transportation and Communication	336	336	359
Trade and Finance	662	685	723
Service	757	772	814
Total ..	4,366	4,702	4,733

Changes Among Industries

The series of quarterly surveys begun by the Dominion Bureau of Statistics in November 1945 shows the postwar distribution of employment as set forth in Table II.

It needs to be recognised that 250,000 had already been discharged from the military forces when the figures for November 17, 1945 were gathered, and consequently the table does not reflect the whole postwar change. It is instructive, however, to note the widely general distribution of the 367,000 added to total industry from November to November. The greatest proportional advance was in construction, but it had been very low during 1944 and 1945. A more thorough month-by-month comparison, using indexes for five of these same industrial groups, is presented in Chart 1.

Manufacturing, of course, is the industry that had shown the greatest expansion during the war, this expansion being made at the expense of trade, mining, construction, and transportation. Manufacturing now dropped continuously from February 1945, was not greatly affected by V-E Day, but plunged downward with cancellation of war orders after the collapse of Japan. This recession increased the proportions of other industries, especially trade, construction, and logging. Of all industries, only mining failed to register some increase, and stood below its 1939 figure. Manufacturing itself, though falling heavily from its war peak, remained high above its 1935-39 average of 110 (1926 = 100).

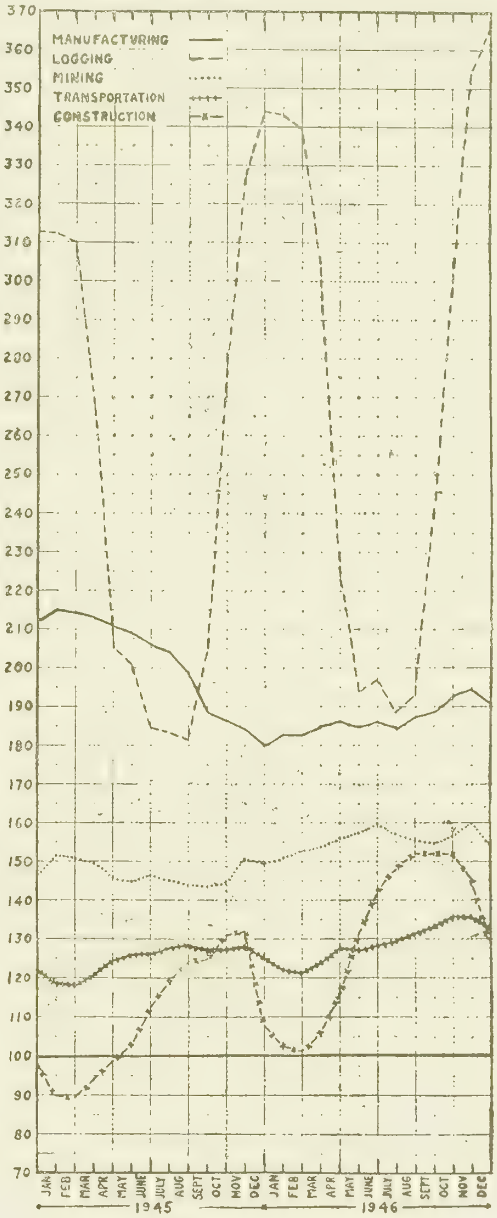

CHART 1—Index Numbers of Employment by Industries (Average Calendar Year 1926 = 100).

Manufacturing, 1945

In view of the importance of manufacturing, it is necessary to refine the analysis by breaking it down into proportional parts. The great proportional increase in manufacturing during the war was in iron and steel and in chemicals and allied products; and within the first-named aircraft and trucks, etc., and steel shipbuilding accounted for most of the increase. In the postwar period these war-expanded industries shrank rapidly in their proportions, whereas others, like pulp and paper, scored a gain. (See Chart 2).

Using 1926 as the base year, the iron and steel index dropped from 300 to 200 during 1945, reflecting a reduction of 135,500 men and women on the pay rolls of the firms reporting, the decline among female workers being relatively larger than among men. Even more spectacular and earlier than the decline in iron and steel was the contraction in chemicals and allied products, the group index dropping from 600 to 320 in terms of its 1926 base. The non-ferrous metal group (notably the brass, bronze and copper, and aluminium divisions), coasting from 395 to 280 index, released upwards of 14,000 persons with the cessation of production of firearms and reduction in demand for aluminium. Another spectacular war performer was the electrical apparatus industry, which dropped steadily in 1945 until November, when it began to pick up again.

By contrast, the pulp and paper and paper-using industries showed considerable improvement, employment totalling higher than any previously indicated. Textiles, though somewhat below their all-time high in 1942, held up well with an average index for 1945 of 158·5 as compared with 121·5 in 1939. The food products industries—plant and animal—retained all their war gains, and the tendency during the year was to repeat 1944, which was the highest for many years. Taken with the beverage industry, which increased steadily from 1939, they reflected the sustained purchasing power of the rank and file after the end of the conflict. Lumber products, which alone entered the war with employment well below that of 1926, held somewhat evenly, if we allow for the heavy seasonal variations, through 1945, activity increasing in rough and dressed lumber mills and in furniture factories but falling off in other lumber-using establishments.

Manufacturing, 1946

Coming to 1946, the iron and steel group straightened out and held, while the land vehicles and aircraft section improved its position. Steel shipbuilding and repairing continued to contract to an index figure of little more than one-third that of the war peak, though still standing at nearly seven times that of December 1939. Chemicals likewise reached equilibrium and held, and later made a positive gain. The non-ferrous metal group closed the year with a distinct improvement. Pulp and paper products held their high position. Textiles also made a good showing, ending 7 points higher than in December 1945 and 34 points above 1939. The lumber group did well, outrunning any of the war years. Food products, both plant and animal, outran the good record of 1945.

Non-Manufacturing Groups, 1946

The better part of the record, however, is found outside of manufacturing. Logging had one of the best years in its history. Transportation employed more month by month than in 1945. Construction employment likewise was well above both 1944 and 1945, a much stronger showing being prevented only by lack of materials. Wholesale and retail trades started the year at a point higher than any previously attained, and though they dropped in February and March they recovered rapidly. The services group showed steadily increasing employment for the first nine months, reaching 239·8, the highest index figure ever attained. Communications throughout the year averaged 20 points higher than corresponding months of 1945, and 30 points above 1944. A creditable performance, indicative of careful advance planning, has been that of telephones.

A special word must be said about mining, which among the eight industrial groups is the only one whose index has been lower throughout 1945-46 than in 1938-39. In the first two years of war the demands of the international exchange balance caused great increase in gold mining, but thereafter the production of base metals took the lead and by 1943 had increased employment by 30,000 over 1939. Coal in the meanwhile had run a fairly even course. With the return of peace, employment in coal mining continued at a point near the pre-war levels, gold mining somewhat above and tending to advance in the fall of 1946, but metallic ores were 90 points below the 350 figure of late 1939. Finally employment in manufacturing after falling heavily throughout 1945, won back 14 points in 1946, or nearly half the losses of 1945.

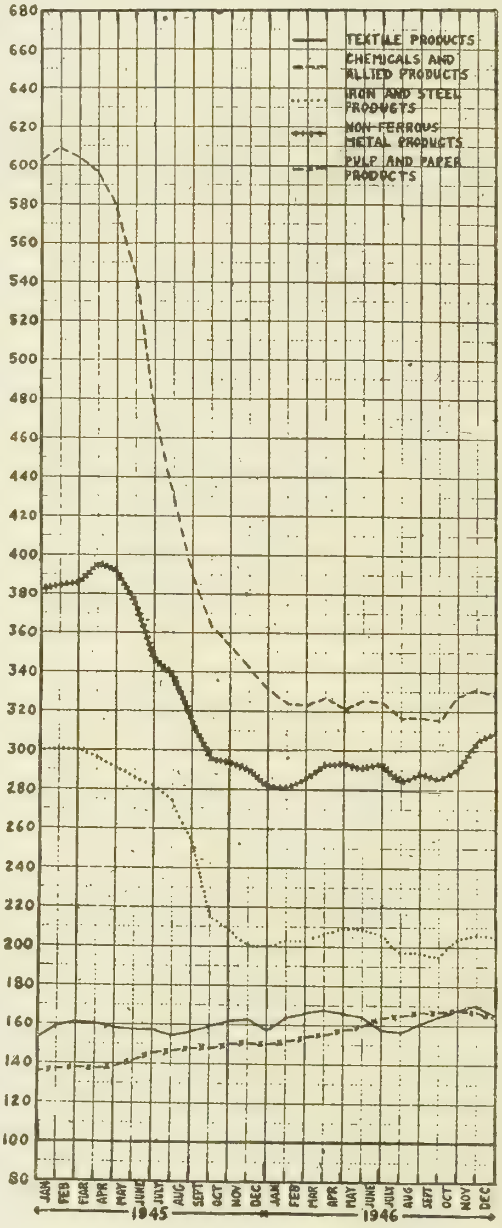

CHART 2—Index Numbers of Employment in Manufacturing (Average Calendar Year 1926 = 100).

Successful Transition

Combining all industrial groups, the record is pleasing. Although a 1945 drop continued through January and February of 1946, at that point industry swung into reverse and had by December not only wiped out the losses of 1945 but reached an employment figure approximately equal to that of December 1944. As contrasted with December 1938, the index figure was 185 as against 114.

The above picture suggests high degree of success in maintaining employment over a period which in war days was looked forward to with no small degree of concern. The causes lie deeper than market organisation. They are found in the sustained exports of the country at levels and prices unknown in prewar years, and in the sustained and distributed purchasing power of the population through pay rolls never before equalled in Canada and through veterans' pensions, social insurance, and family allowances. In the Canadian economy both these supports are necessary to the maintenance of full employment.

Supply and Demand

Turning, however, to the organisation of the labour market and the postwar pattern of vacancies, applicants, and placements, the records of the Employment Service show that from February to May 1945, the last period of heavy wartime needs, vacant positions exceeded applicants usually by a margin of 10,000; that from June 1 to August, vacancies and applications were approximately equal; and that from August (the close of the war) to March 1946, applicants exceeded vacancies steadily by a margin varying between 8,000 and 15,000. Thereafter the situation reversed, the bulk of replacement of the armed forces having been accomplished, and, apart from a two months' period in early summer involving heavy strikes, remained so until November.

A striking feature of the period April to November 1946 was the near equality of vacancies and applications, the former rarely running more than 5,000 above the latter, and each being confined between 35,000 and 42,000 per week. What is more important is that, seen against the background of a labour force of almost five million in the country, the size of these figures is reassuring. When we remember that unemployment insurance benefits are not available unless claimants satisfy the Employment Service of their inability to connect with jobs, the small number of applicants is additionally significant. The number of persons collecting insurance benefits during 1946 varied from 158,000 in March and April to less than 75,000 from August to November inclusive, though the total unemployed averaged 40,000 higher.

Here it should be recalled that placements through the Employment Service by no means cover the whole labour turnover. During the active years of war they came near to doing so; in the winter and spring of 1945 the National Selective Service placed each week 30,000 persons in non-agricultural jobs as against fewer than 5,000 engagements without referral by the Service. But as freedom in this matter was extended to the armed services and to woman workers, engagements without referral rose to 16,000 in October. Beginning with January 1946 and continuing since, they have exceeded placements by the Service. For November the figures stood at 18,000 Service placements per week as against 26,000 engagements without referral.

This condition, while it implies a lessening positive function by the Service, may also, when not accompanied by large unemployment, suggest that both parties to industry are meeting with little difficulty in establishing contractual relations, some credit being due to the Service for making it so. It may also suggest a big role being played by trade unions as employment agencies. But with due allowances, it also touches off certain fears lest the public service drop to a position of comparative disuse resulting in impotence to serve either party to industry in less happy days when an all-over intelligence service is needed. That workers do get their jobs by their own efforts rather than through the Service suggests that desirable vacancies are not adequately reported.

Remoulding the Labour Commodity

In the war years there were created facilities for training and retraining, directly related to the nation's requirement. Much attention was given to foreman and supervisor training as well as to preparation of the rank and file for jobs insufficiently manned. Mainly the latter was pressure-training by specialised short courses in technical schools and on the job.

With the return of peace this deliberate moulding of the working force to cope with a definite purpose was dropped. In its place, as far as the discharged military personnel was concerned, there was substituted Canadian Veterans Training, consisting of free vocational training and living expenses, with practical laboratory work, as well as regular high school and university preparation courses. Financial support for these was related to the number of years in each case between enlistment and discharge.

Popular among the technical training courses have been carpentry, motor mechanics, electrical construction, machinists' trade, plumbing, and bricklaying. In the universities, the 60,000 who have enrolled during the whole period have favoured arts and sciences, engineering, and commerce. It should be appreciated, however, that in peacetime students choose courses according to personal preference, personal fitness (the psychological adviser has been conspicuous in serving the newly discharged), social influence, and imitation, quite as much as with a view to the future requirements of the economy. In other words, the nation has quickly returned to freedom of choice for the individual in deciding what he will do, including freedom to choose erroneously and out of line with prospective future demand.

Somewhat late in the day certain studies have been attempted in mapping occupational and industrial trends, but the logic of intelligence has probably shown itself at its weakest in this aspect. This would seem to be the more reprehensible because of the great sums of government money being thrown into specialised training of veterans.

Obstacles to Full Employment

A major problem of the Canadian labour market is that of adjusting to the changed requirements of the seasons. This resulted in 1946 in a continual series of shortages and surpluses of labour. Normally, September and October are the months of heaviest employment in Canada; January and February, the lowest. A task of the Employment Service is to study carefully in what industries winter employment is available. Apparently logging and to some extent mining offer the greatest potential. Remedy, however, must come through considering total demand. It cannot be accomplished wholly through further mobilising the work force. This suggests a responsibility lying beyond the Employment Service. Yet relative immobility of labour remains an important problem. Distances in Canada are great. The areas of lumbering, mining, and fishing are far removed from other work endeavour and are widely separated part from part. Language and cultural differences separate Quebec from areas east and west, while seniority considerations and trade union exclusiveness constitute still further challenges. But greater than these as an obstacle during 1945 and 1946 has been the acute shortage of housing in the main industrial centres. Particularly has this affected the transfer of female workers from out-of-town areas.

The handling of unemployment insurance in relation to veterans has operated to decrease occupational mobility. Collection of insurance has been allowed where workers cannot obtain jobs similar to those held during the war. The result has been a temporary " freezing " of men in wartime occupations. On the other hand, the discontinuance of insurance benefits to applicants having agricultural experience has favoured the transfer of many.

The disregard of employers for the ageing worker threatens to develop into a serious problem. The too frequent stipulation that candidates even for such jobs as caretaker and cleaner must be below age 50 operates to curtail an important section of the working force.

Recently the shortage of female workers in some centres has developed into a problem. In early January 1947 in Greater Toronto a list of 10,192 unfilled vacancies stood over against 523 registered applicants. An investigation by a subcommittee of the Advisory Service found this to be primarily a wage question, though intensified by lack of living accommodations and insistence of employers on hiring young and single women.

Finally, the need for training of applicants is very evident at times when the unplaced are increasing while employment opportunities continue unsatisfied. A wide variety of training courses is authorised under the Unemployment Insurance Act, but the heavy requirements of ex-service personnel have until now excluded all others. As this need subsides, the Employment Service should have at its disposal a valuable instrument for overcoming maladjustments in the labour market. At present, unfortunately, this development is delayed in some provinces by failure of province and Dominion to reach fiscal agreement.

In closing, it is in order to say that the Dominion Employment Service is deriving considerable benefit from association with officials and research workers of the United States Employment Service. Especially is this true in such matters as the describing and classifying of jobs and occupations. A feature threatening effective functioning of the Canadian Service is the low salary range covering responsible positions in the Service itself.

LABOUR ORGANISATION IN CANADA

By IDELE WILSON

Director of Research of the United Electrical, Radio and Machine Workers of America (*Canadian Division*)

LABOUR organisation in Canada dates back to 1827 in Quebec, and perhaps even before 1816 in Nova Scotia. The first local unions arose spontaneously out of the immediate problems of the handful of workers in the port towns. Improved transportation after 1850 brought the beginnings of industrialisation and a greater demand for skilled workers, most of whom came directly from Great Britain and naturally modelled their new local unions on the British unions.

Canadian transportation and trade relations in the early days, however, were mainly north and south, and there was constant interchange of workers between Canada and the United States, which soon led to " international " unionism. With the continental development of capital, and the rapid and widespread establishment in Canada of branch plants and subsidiary companies of United States firms, the need for labour organisation on a matching scale became increasingly clear.

In the period of industrial expansion following Confederation and the end of the American Civil War, the Canadian locals came together for joint action to secure the nine-hour working day and to establish the legal status of trade unionism in Canada. Local trades assemblies were established, first in Toronto in 1871 and then in other cities, and the Canadian Labour Union, founded in 1873 brought together for the first time the local unions of all the cities of Ontario. All these organisations disappeared during the industrial depression of the middle seventies, but not before their very effective public campaign had resulted in legislation setting out the legal basis for trade unions in Canada.

When industry began to revive and expand, the Canadian locals again set about establishing central organisations. This wave of industrial expansion brought the beginnings of factory production, and of union organisation among the semi-skilled and unskilled workers. The Knights of Labour set up its first assembly in Canada in 1881, and in a short time there were assemblies of the Knights of Labour locals as well as assemblies of the craft unions in all the major cities of Ontario and Quebec.

Establishment of Central Bodies

The Trades and Labour Congress was established in 1886 to co-ordinate the work of all these local unions and city assemblies. It differed from the American Federation of Labour, which was founded only three months later, in two major respects: (1) it provided for the affiliation of all local unions, not confining itself to the craft locals, and (2) it emphasised legislation and political action as well as collective bargaining. Within a few years it included practically all unions in Canada, except the international unions in the railway running trades, which have continued to operate independently.

The conception on which the Trades and Labour Congress was founded was that of one labour centre, organising and uniting all workers, for political as well as economic action to improve the conditions of Canadian labour. The struggle to carry forward this conception has been a constant one, and has reached a crisis on three occasions—in 1902, 1919, and 1939. Each time, the Trades and Labour Congress has, reluctantly and after some delay, adopted in general the organisational position of the American Federation of Labour, and new labour bodies have had to be created, mainly outside the Trades and Labour Congress, to carry on the work of organisation.

First crisis

The first crisis culminated in a decision of the 1902 congress convention that only one union should be recognised for each trade and only one central council for each city. By this decision the congress gave up its original basis as a federation of all unions and became virtually a federation of the Canadian locals of American Federation of Labour unions for legislative purposes only, though with greater powers than a state Federation of Labour, because it retained the right to issue charters directly to the Trades and Labour Councils in each city and to organise and issue charters in industries where there was no AFL union operating.

This decision automatically excluded the Knights of Labour unions from the congress and slowed down the trend to affiliation of the remaining independent unions. The excluded unions and some of the independent groups joined to set up a second central body, small in comparison to the Trades and Labour Congress but important as the beginning of the split in the Canadian labour movement which has continued until today. The Knights of Labour, organised mainly among semi-skilled and unskilled workers, was already declining because of the economic pressure of the growth of large-scale industry vigorously opposed to unionisation. Without support from the skilled workers, the Knights of Labour soon disappeared. In Quebec, where it had been particularly strong, its disappearance left a gap which was not filled by the craft unions, leaving the way open for the organisation of syndicates among the French-speaking Catholic workers. These syndicates eventually federated into the Canadian and Catholic Confederation of Labour, thus separating the French-speaking workers of Quebec from the main stream of the Canadian labour movement.* In western Canada, where a rapid industrial expansion was under way, the unorganised workers in railway construction, metal mining, and lumbering turned to the Industrial Workers of the World, while the craft unions in the metal trades and construction industries of the cities developed their own forms of joint organisational campaigns.

Second Crisis

The second crisis, in 1919, took the form of a revolt within the Trades and Labour Congress itself. Under the pressure of wartime needs, rapid strides had been made in Canadian industrialisation. Jurisdictional barriers to organisation had been temporarily brushed aside, and the congress had grown at an unprecedented rate in a wide variety of industries. The unions of western Canada had by this time developed a policy of direct economic action as a result of twenty years of open and often violent industrial conflict; they included, moreover, many workers experienced in the struggles carried on by the Industrial Workers of the World. Dissatisfied with the more cautious position taken by the eastern unions which controlled the policy of the congress, they withdrew and set up a rival organisation, the One Big Union. Before it was fully established, its affiliated unions in Winnipeg had become involved in the Winnipeg general strike of 1919, a strike originating from ordinary collective bargaining demands in the metal trades and the building trades. The opponents of the new organisation used the general strike as a testing ground, and its eventual failure virtually broke the One Big Union.

At the same time, in eastern Canada strikes of craft unions were being broken in important plants and industries. With the depression of 1921, union membership fell off sharply. The craft unions regained control of the skilled workers throughout the country and returned to their old basis as organisations of skilled workers only, though in relation to economic developments in Canada their strength was less than before the war. The semi-skilled and unskilled workers, particularly in the growing basic industries and mass production factory industries, were again left without organisational machinery.

New industrial organisations, however, arose to fill this gap in the lumber industry, mining, and the needle trades. In 1930, under the impact of industrial depression, these unions joined forces to form the Workers' Unity League, Canadian counterpart of the American Trade Union Educational League, which carried on an active organising campaign in the low-paid unorganised industries. With industrial recovery and the passing of the Wagner Act in the United States the international unions again began to take an interest in the organisation of semi-skilled and unskilled workers. The Workers' Unity League disbanded in 1936 and its members became part of the Trades and Labour Congress unions. In the meantime, the remaining independent unions in Canada drew closer to the second central labour organisation, which was reorganised in 1927 as the All-Canadian Congress of Labour.

Third Crisis

The third major crisis in the Trades and Labour Congress came in 1939 as the result of the rapid organisation of industrial unions under way in both the United States and Canada. The establishment of the Committee for Industrial Organisation in the United States in 1935 found a ready response in Canada, and CIO unions were soon operating in Canadian industries previously unorganised, including steel, automobiles, rubber, electrical apparatus, meat packing, metal mining, and British Columbia lumbering. For three years after the CIO unions had been expelled from the AFL in the United States they remained part of the Trades and Labour Congress in Canada, but continued pressure from the AFL finally led to their expulsion in 1939. The expelled CIO unions promptly set up a Canadian CIO Committee, which, not wishing to create still another division in the Canadian labour movement, amalgamated with the All-Canadian Congress of Labour in 1940 to form the Canadian Congress of Labour.

Organisational Structure

The unions affiliated with the Trades and Labour Congress are predominantly craft in type, and the greater number of them are locals of unions affiliated with the American Federation of Labour operating in Canada. The relations of the congress with the AFL are, however, fraternal rather than direct—quite different from those of a state Federation of Labour in the United States. The regular annual conventions of the Trades and Labour Congress establish its policies, which on a number of important issues have been very different from those adopted by the AFL. An outstanding example is the decision of the 1946 convention to affiliate with the World Federation of Trade Unions.

The Canadian Congress of Labour is made up almost entirely of unions of the industrial type, and the greater number of them are locals of unions affiliated with the Congress of Industrial Organisations operating in Canada. From its inception it has been an independent body, both formally and in fact completely distinct from the central CIO, with only a fraternal relationship between the two bodies.

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* In 1946 there were 208,546 trade unionists of various kinds in Quebec and 70,367 members of the syndicates.

The emphasis on the autonomy of the two central congresses in relation to the central labour organisations in the United States does not indicate any weakening of international unionism in Canada. The great majority of the members of both congresses belong to local unions which are part of the many international unions operating in both the United States and Canada, and the independent brotherhoods are also of the international type. At the end of 1945, about 67 per cent of all trade unionists in Canada were members of international unions, and the proportion is probably even higher today.

The other groups included in the Canadian labour movement are : (*a*) the Canadian and Catholic Confederation of Labour, which operates only in the province of Quebec; (*b*) the independent international railway brotherhoods of engineers, firemen, trainmen and conductors; (*c*) a few unions of the American Federation of Labour and of the Congress of Industrial Organisations whose Canadian membership is not affiliated with the Canadian congresses; and (*d*) a scattering of independent unions.

The Canadian and Catholic Federation of Labour, which in 1945 reported the largest membership of any of these latter groups, stands apart from the general labour movement of Canada and militates to segregate the French-speaking workers of Quebec on a basis of race and religion. This division has never been complete; the unions of the two congresses have always had a substantial French-speaking membership in Quebec, which is now rapidly increasing even in the smaller industrial communities.

In addition to their connections with the central labour bodies and, in the case of the international unions, with the labour organisations in the United States, Canadian local unions have developed extensive interrelations on provincial, city, and industry bases. Within both the congresses, federations have been established in the chief industrial provinces, mainly to co-ordinate the efforts of the local unions to secure improvements in provincial labour legislation. In most cities there are two labour councils, each co-ordinating the work of the locals of one of the congresses. Practically all the CIO unions operating in Canada, and some of the AFL unions, have established one or more Canadian districts which usually have complete autonomy within the parent organisation. Where several craft unions are operating in the same industry, for example in construction, printing and the railway shops, industry councils have frequently been established, usually on a city scale.

The world-scale connections of labour in Canada go back many years, to the British Chartist movement and its Tolpuddle Martyrs who found a home in Canada after their return from the Australian penal colonies. After the First World War, the refusal of the London dockers to load supplies to be used for intervention against the newly established Soviet Union found its parallel in the refusal of Vancouver dockers to load ships for intervention in Siberia.

Canadian labour has taken an active part in the proceedings of the International Labour Organisation and has been represented at its conferences ever since its first meeting. Both central congresses took part in the London Trade Union Conference of 1945 which initiated plans for a new world labour organisation. The Canadian Congress of Labour is now affiliated with the World Federation of Trade Unions, and the Trades and Labour Congress has passed a resolution favouring affiliation.

Wartime Gains and Postwar Struggles

The highest union membership reached in Canada before World War II was in 1938, only a few thousands above the membership in 1919, and included about 19 per cent of all wage and salary earners in Canada outside of agriculture.

Wartime membership gains were made easier by the introduction for the first time in Canada of collective bargaining legislation somewhat similar to the United States Wagner Act, first in some of the provinces and later by the Federal Government on a temporary wartime basis. Under this legislation collective bargaining rights were widely established in the mass-production industries, and collective agreements became the rule, where before the war they were almost unknown.

Canadian industry, however, was not convinced that the new unions were so firmly established that they could not be dislodged, and assaults were made in various quarters on these wartime gains. To counteract these moves, the unions directly affected launched campaigns for union security, or at least a provision in collective agreements for the check-off of union dues by the employer, and also for higher wage rates to offset the decline in real wages resulting from cutbacks in hours, various forms of wage cutting, and rising living costs.

In the eleven months from September 1945 to July 1946, strikes followed one another in rapid succession in the newly organised sections of labour, involving 170,000 workers in the automobile, lumber, rubber, textile, shipping, electrical, steel, and metal mining industries.

In the course of this struggle, the most extensive that has ever taken place in Canadian labour history, the Federal Government and the provincial governments of Ontario and Quebec, in the opinion of labour, lined up with industry. The labour movement, on the other hand interpreted the struggle as one for the survival of organised labour in Canada and also as a basis for further progress, and rallied to the support of the unions on strike, practically without exception and regardless of affiliation.

The strikes ended with the general acceptance of the check-off system, substantial wage increases (proportionately about as great as in the United States in relation to the previous wage levels), a greatly strengthened union membership, and a widespread recognition that the new unions had become permanently established.

Present Strength

The latest annual survey made by the Federal Department of Labour, at the end of 1945[1], at the height of the dislocation resulting from the cancellation of war orders and before reconversion to peacetime work was fully under way, showed a total union membership in Canada almost double the figure for 1939. Reports were received from 4,329 local unions with a total of 711,117 members, one-quarter of the estimated number of non-agricultural wage and salary workers. Strong unions had been developed in all the basic industries, and there was every indication that they were permanently established.

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[1] *Thirty-Fifth Annual Report on Labour Organisation in Canada*, Ottawa: The King's Printer.

Since 1945 the slight drop from the peak wartime membership of 1944 has been more than offset by new organisation in peacetime industry and by consolidation of membership in plants already organised.

The Canadian Congress of Labour, operating in industries previously unorganised, made greater wartime gains than did the Trades and Labour Congress. The two bodies are now almost equal in membership and influence.

At the end of 1945 the Trades and Labour Congress reported 55 per cent of the local unions and 44 per cent of the total union membership. In September 1946 it reported 330,000 paid-up members, 1,000 more than in 1944.

In 1945 the Canadian Congress of Labour reported 22 per cent of the local unions and 33 per cent of the total union membership. It has grown rapidly in the past year, and the proportions are probably higher today. In September 1946 it reported a paid-up membership of 350,000 an increase of 100,000 since 1944.

Since September many of the larger unions have reported additional increases of membership.

Distribution of Membership

At the end of 1945 about 62 per cent of the total union membership was concentrated in the two main industrial provinces of Ontario and Quebec—the same proportion as in 1939. The two cities of Toronto and Montreal, which in 1939 had 31 per cent of the total membership in Canada, had only 26 per cent in 1945, indicating that the recent development of new organisation has been proportionately greater in the outlying centres.

The industrial distribution throws additional light on wartime organisation trends and on prospects for future union growth. The metal industries, the mass organisations in the automobile, steel, electrical, and shipbuilding industries, together with the craft organisations in the metal trades, accounted for about one-fifth of the total union membership at the end of 1945, as compared with less than one-tenth in 1939. The steam railways furnished another fifth of the 1945 total, a somewhat smaller proportion than in 1939. The construction industry and the service industries (including government service) provided another fifth, a slightly larger proportion than in 1939. Mining, transportation other than steam railways, and clothing and footwear, together had just under one-fifth of the 1945 total, as compared with one-quarter in 1939. The remaining members, 22·5 per cent in 1945 as compared with 25 per cent in 1939, were divided among the wood and wood products industries, textiles, foods, printing and publishing, light, heat, and power, and all other industries.

Legal Status and Political Action

The economic policies and the organisational structure of the Canadian labour movement have developed along lines closely parallel to those of the movement in the United States. In the legislative and political fields, on the other hand, there has been a different line of development, partly because the Canadian movement has been more influenced by that in Great Britain. Canadian labour has also maintained close relations with the labour movements of other countries.

The Canadian labour movement has always in principle accepted the position that both economic and political action are necessary to improve the conditions of the workers. The idea of an independent labour party, along the lines of the British Labour Party, has always had an attraction for Canadian workers, and on many occasions the unions have taken an active part in naming and campaigning for labour candidates for the Federal and provincial legislatures and municipal councils.

The main difficulties encountered in carrying out a political programme are the divisions in the labour movement itself, the confused jurisdiction over labour matters, and the minority position of a widely scattered labour movement in a country which until very recently has been mainly agricultural.

On the whole, although on record for a more positive independent position, Canadian labour has confined its political action to lobbying, supporting its friends in the ranks of the established political parties, and carrying on public campaigns for improved labour legislation.*

The basic Canadian legislation on the status of unions is a direct importation from Great Britain, and Canadian labour is still operating under the British law of the 1870's in regard to civil and criminal conspiracy and the right to picket. Later developments in Great Britain have not been reflected in Canada, largely because in the division of Federal and provincial jurisdiction it is difficult to know where the authority for basic changes in labour law in Canada really rests.

On working conditions and wages, full jurisdiction, except in a national emergency, remains with the individual provinces, each of which is reluctant to change its legislation until it is sure that the rest of the provinces will take similar action. The same is true of social security; although in that field the Federal Government has assumed more responsibility, for example in the introduction of a national system of unemployment insurance.

On the settlement of industrial disputes, Canada has developed its own distinctive form of legislation—a combination of conciliation, public investigation, and " cooling off," of which the criticism is made that it does little to promote a settlement on any basic issue, and often delays recourse to economic action until the latter is of little effect.

Until very recently nothing had been done to protect workers against discrimination for union activities or to require an employer to bargain with a union which is the choice of the majority of his employees. Under the influence of the Wagner Act in the United States and of the wartime need for industrial stability, the main industrial provinces have adopted legislation which begins to meet this need. The Federal Government dealt with it for the first time on a national scale under its wartime emergency powers, but these powers have now expired, and the field has been returned to the jurisdiction of the provinces except for the limited number of industries which operate nationally.

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* In 1943 the Canadian Congress of Labour endorsed the C.C.F. as its political arm and recommended chartered unions to affiliate. About 30 T.L.C. locals are affiliated with the C.C.F.

THE GEOGRAPHY OF CANADA

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AMONG the Dominions of the British Commonwealth, Canada (with which is usually associated Newfoundland) ranks first in area. It contains about three and a half million square miles; the other chief Dominions—Australia, India, and South Africa—have areas of three, two, and one million square miles respectively. Of the huge area included in Canada, only about 800,000 square miles are moderately settled, while the remainder contains only scattered outposts, based mainly on mining or fur trading. Indeed, much of it is as empty as it was in the days before the first French settlements. However, pioneers are pressing forward, and it is the main purpose of these pages to explain the present distribution of settlement and to suggest where the new settlement in the near future is most likely to occur.

Canada is divided politically into nine provinces and a number of sparsely populated territories. Table I shows clearly that the provinces differ greatly in area and in possibilities of population. Since the first modern settlements occurred perhaps as early as 1520 in Newfoundland and about 1600 at Tadoussac (East Quebec), it is clear that the occupation has now extended over three and a half centuries and has reached a stage of some stability.

If the "factory" figures in Table I be plotted against the population figures, it will be seen that the population distribution varies fairly regularly with the industrial position. Thus the population (in millions) equals 0·36 × factories (in thousands). No such simple relation is apparent if the farmlands be plotted against population. This suggests the prime importance of manufacturing in Canada today.

TABLE I

PROVINCIAL DISTRIBUTION OF AREA, FARMLANDS, FACTORIES, AND POPULATION[a]

Provinces	*Total Area (Thousand square miles)*	*Farmlands (Million acres in 1944)*	*Factories* (1944)	*Population (Thousands in* 1941)
British Columbia	359	0·6	2,116	818
Alberta	249	14	1,165	796
Saskatchewan ..	238	24	1,054	896
Manitoba ..	220	7	1,290	730
Ontario	363	9	10,730	3,788
Quebec	524	7	9,657	3,332
Prince Edward Island	2	0·5	241	95
New Brunswick ..	27	1	937	457
Nova Scotia ..	21	0·5	1,281	578
Total ..	**2,003**	**63·6**	**28,471**	**11,490**

[a] It will be noted that the totals are for the provinces only, and not for the entire Dominion.

The Build of Canada

All the continents have much the same pattern as regards their build or structure. On the Atlantic side the land surface is formed of a wide expanse of very ancient rocks which is known as a Shield. In Canada this occupies half the area of the Dominion (Fig. 1), and is an undulating surface—for the most part not much above sea level—

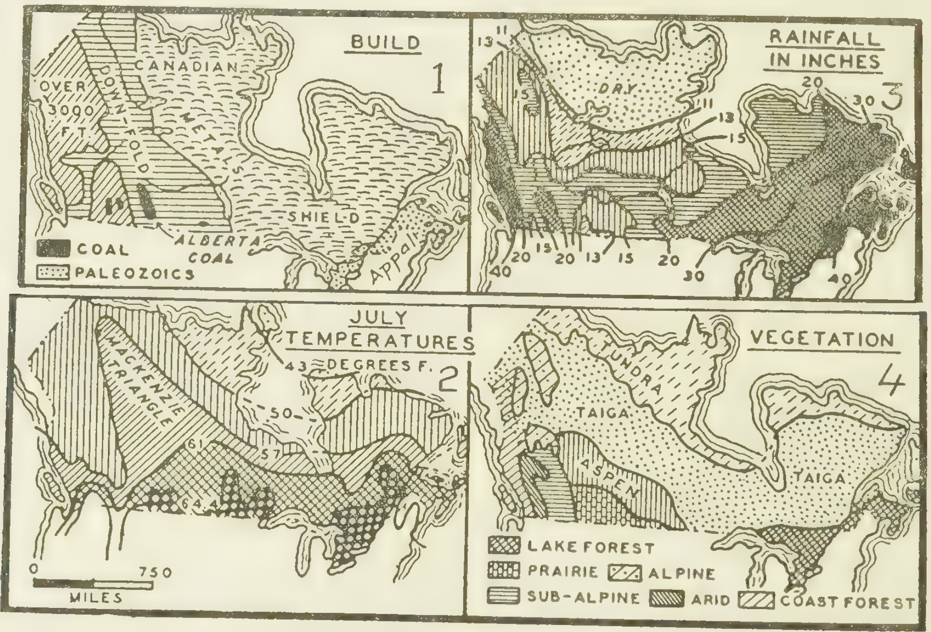

FIG. 1—Build of Canada. The Downfold and the Paleozoic Fringe (dotted) are the most favourable.
FIG. 2—July Temperatures. Note the northern " hot loop " in the 57 degree isotherm.
FIG. 3—Annual Rainfall. Note the fvaourable crescentic area (horizontal lines) near Edmonton.
FIG. 4—Natural Vegetation. The Lake Forest and Prairie divisions are the most favourable.
(From Griffith Taylor, *Canada*, London: Methuen and Co., 1947)

consisting largely of granites and allied rocks. All of these were laid down in Pre-Cambrian times, i.e., more than 500 million years ago.

On the Pacific side the continent exhibits a series of high mountain folds, which are several hundred miles wide in Canada. We know them as the Coast Ranges, the Selkirks in the south, and the Rockies. These are relatively young features in the evolution of the earth's crust, and hence are known as Young Mountains. They have been lifted above sea level mostly in the last 40 million years. Between the ancient Shield in the east and the Young Mountains in the west is a wide area of lowland, representing a depression, or Downfold, which developed during the period of mountain building. Here the largest rivers naturally have their place, notably the Mackenzie in the north and the Saskatchewan in the south of the Dominion.

Shield

These three main features in the build have different effects on human settlement. The Shield consists of rocks which give rise to sterile soils for the most part as they are weathered by frost, rain, rivers, and other factors. Hence there is not much chance of close agricultural settlement in this large portion of the Dominion. On the other hand, there have been many opportunities for heated vapours and liquids rising from the deeper portions of the crust to penetrate these rocks, since the latter are very old and have suffered much folding and cracking. Mineral veins and metallic deposits usually arise from these vapours and liquids; and accordingly, the chief gold, silver, nickel, and iron mines are found in this formation.

Young Mountains

In the Young Mountains of the west there are not such good chances of mineral deposits, unless there has been much development of igneous action in the past. Luckily this has been the case in regard to the earlier phases of the mountain building. Much of the mass of the Coast Ranges and the Selkirks consists of a great batholith of granite, which solidified far below the surface but is now exposed by weathering. In or near these granite masses many valuable mineral deposits occur, such as at Kimberley (lead-zinc), Rossland (gold-copper), Howe Sound, Stewart, Klondike, and other places. In the eastern ranges, the Rockies, there was little igneous action, and therefore there are few mines in these mountains.

Downfold

The third major element in the build—the Downfold—is likely to be the most valuable when its resources are fully exploited. Here the sands and silts washed down from the Rockies, and also from the Shield in the east, have been deposited. For many millions of years there was a wide sea occupying the area of the Prairie Provinces. Today this sea floor has been elevated above sea level, and the Cretaceous and allied formations give rise to the fertile plains of the prairies. In swamps in these plains great peat bogs developed, and these in turn gave rise to the widespread coal seams of Alberta. Indeed some of the coal occurs in the folded crust building the Young Mountains, as for instance near Crows-nest Pass in the far south of the Rockies. Associated with the folded rocks on the margin of the Downfold we find domes which are favourable for the collection of petroleum and gas. Here accordingly at Turner Valley is the most valuable oil field in Canada. But the agriculture of the prairies is the chief resource of the Dominion, and this, as stated, is due to the favourable formations and deep soils to be found in the lowlands of the Downfold.

Other Elements

A small but important area in the Dominion does not fit into the simple threefold division of the build so far described. This consists of a narrow strip of territory along the Saint Lawrence Valley from Quebec to Windsor. Here on the southern edge of the Shield various layers of rocks were laid down in the Paleozoic period (about 300 or 400 million years ago). This region may appropriately be termed the "Paleozoic Fringe," since, though it is 700 miles long, it is rarely as much as 100 miles wide. The best farms of Quebec and Ontario are all south of the Shield in this Paleozoic Fringe.

The last element in the build of Canada consists of a rather narrow belt parallel to but southeast of the Paleozoic Fringe. The Maritimes and the southeastern portion of Quebec belong to this structural area. Here the landscape is corrugated into hills and dales with a general northeast-southwest direction. The valleys are broad and shallow, while the hills form plateau-like ridges. We are in fact dealing with the relics of a former system of "Young Mountains," which rose far above sea level about 150 million years ago. Since that time they have been eroded almost to sea level. The roots of the mountains have again been uplifted, and the softer formations have weathered away, leaving the harder beds to stand out like the grain in an old wooden plank.

The build and topography of Canada can therefore be summarised as in Table II.

TABLE II

BUILD AND TOPOGRAPHY OF CANADA

Structural Element	*Province*	*Character*
Shield	Most of Quebec, and Ontario, Manitoba, Keewatin, etc.	Undulating rocky surface, rich in mines and lakes.
Downfold	Alberta, much of Saskatchewan and Mackenzie	Good farmlands, and coal in places
Young Mountains	British Columbia and Yukon	Rugged topography, mines, lakes, tourism;
Paleozoic Fringe	Southern Quebec and southern Ontario	Fair farmlands
Appalachian and allied folds	Maritime Provinces	Fair farmlands but empty ridges

There is one last feature in the build of Canada which needs to be explained. About a million years ago the climate of North America became some 10 or 12 degrees colder than it is at present. Under these conditions the heat of summer was not sufficient to melt the wide-spread cover of snow, and in time it became a vast ice-cap which extended south to the Missouri and Ohio rivers. (There were three major intervening periods of warmth in this million years giving rise to warm interglacial periods, but these we may ignore). The ice-cap carried vast quantities of debris (till or moraine) and this was strewn all over Canada as the ice melted after the *last* major cold phase. This event is put down as about 15 or 20 thousand years ago in the south of the Dominion. Of course an ice-age is still in being in Baffin Island, Greenland, and other places.

The veneer of glacial till is a very prominent feature all over the centre and east of the Dominion. It is the basis of the soils in every farm, and is widespread over the Shield as well as over the prairies and along the southern fringe of younger rocks in Ontario and Quebec to the south of the Shield. Luckily the till torn off by the ice is for the most part derived from the underlying rocks. Hence the soils of the prairies (and of the fringe of Paleozoic rocks between Quebec city and Windsor) are much more fertile than those on the Shield. Often these layers of till and other forms of glacial debris are many feet thick; and as they were laid down in a haphazard fashion by the waning ice-cap, the irregular surface contains thousands of lakes. These give rise to valuable resources of water power, which are on the whole more abundant on the hard Shield than on the weaker rocks of the Prairies and the Paleozoic Fringe. In the latter areas the modern streams have drained the lakes and smoothed out the falls which no doubt characterised the regions immediately after the melting of the ice.

Climates

Perhaps the outstanding feature of the Canadian environment is its continental character, which decides the type of climate. The centre of North America is far from the sea, and therefore has a range of temperature of more than 50 degrees between the hottest and the coldest months. This area of extreme continental climate is, however, found almost wholly in the Canadian portion of North America, and is the dominating feature of Canada's environment. It is marked rather by specially cold winters than by very hot summers. Only in the vicinity of Vancouver, B.C. is there any district in Canada which at all resembles Great Britain in climate. Climates similar to those of northern and central Canada are to be found only within the Soviet Union. This should lead Canadians to study progress in the U.S.S.R. as a nation evolving in a cold continental environment.

Another feature of the Canadian climate results from its northern latitude. At the Arctic Circle in midsummer daylight lasts for 24 hours, and even as far south as the latitude of Peace River there are over 18 hours of daylight. This greatly increases the possibility of growing crops in this part of the Dominion. Of course these areas have a bitter winter, but the low temperatures at this season are of little importance to the farmer; and luckily they do not adversely affect the coniferous forests, which form another valuable asset of the northern lands.

Lack of space prevents giving details of temperatures, but the course of some of the isotherms in summer is of supreme importance if we would understand the possibilities of the northern "pioneer fringe." The isotherm for 57 degrees in July is probably the most important factor in future settlement. Reference to Fig. 2 will show that it has a peculiar position on the map. We should perhaps expect it to occupy a position *parallel* to the equator; but it passes from western Newfoundland northwest to the west corner of Labrador; thence westward to the north of Lake Winnipeg; thence northwest to the mouth of the Mackenzie in latitude 67°N.; thence again it passes south along the edge of the Rockies to the United States border, afterwards following a complicated direction among the mountains of southern British Columbia.

Thus the most striking feature of the summer temperature map is the enormous triangle (which I have elsewhere termed the "Mackenzie Triangle") which lies between Edmonton, Aklavik (in the far north), and The Pas near Lake Winnipeg (Fig. 2). In all this huge area of nearly half a million square miles—all north of latitude 55°N.—the climate is warm enough for crops like potatoes, hay, and special breeds of oats and barley. The latter will form grain in the far north, though they will not ripen in most years; as witness the crops grown at Aklavik.

Other aspects besides those of summer temperature must be considered as regards the Mackenzie Triangle. Early frosts often occur, the rainfall is quite low in most of the area, and drainage is difficult in large districts. We have, moreover, no adequate knowledge of the soils, but except in the river flats these are not likely to be very favourable. However, we can easily recognise that expansion into high latitudes is possible in the Mackenzie area, while quite impractical in far northern Quebec, Ontario, and Manitoba.

As regards rainfall, the Dominion is rather favourably situated. Only in the far north does the rainfall measure below 11 inches a year over large areas (Fig. 3). The course of this 11-inch isohyet (rain line) runs along the Mackenzie River south to Great Slave Lake, thence along the northern boundary of the Prairie Provinces to Hudson Bay. Except for small areas near Medicine Hat, and in the valleys of British Columbia, all to the south of the quoted 11-inch isohyet has a rainfall exceeding this figure. In most of the interior the rain falls in the summer or autumn months. The latter season is not very satisfactory, for in lands with autumn rains, such as those near James Bay, it will be difficult to ripen grain crops. On the Pacific and Atlantic coasts the rainfall is over 40 inches, and exhibits a winter maximum. One station in the west of Vancouver Island receives 200 inches a year, which is the maximum for North America.

Soils and Vegetation

No complete survey has been made of any large area of the soils of the Dominion, except perhaps in Saskatchewan, but we have a fair idea of the general features. Most of the Dominion soils have been subjected to the action of fairly heavy rains for thousands of years, and in consequence of this factor and of the cold climate they belong to the type called Podzols. These are not very fertile, but are almost universal except in the drier lands of the southern prairies. Here, in or near the crescent-shaped area receiving over 14 inches of rain a year (Fig. 3), there is a broad belt of Brown Soils which are akin to the famous Chernozems (black soils) of the Russian wheatlands, where they were first investigated. In the arid portions of the prairies there is a narrow zone of Gray (semi-desert) soil which is best suited to a ranch economy.

The natural vegetation of the Dominion is the best key to future progress. It has been mapped adequately by various authorities, and is classified in five main divisions (Fig. 4). In the north, from Aklavik to Labrador, extends the southern boundary of the tundra. This is a region of treeless plains, but covered in summer with grasses, sedges, mosses, and many varieties of flowering herbs, as well as dwarf species of willow and birch. Here graze the caribou and the musk ox, which we may well see greatly increased in the future. Unfortunately this will not add much to the human population of the tundra.

The most extensive zone is occupied by the taiga, or coniferous forest, which consists mainly of spruce, with much pine, fir, aspen, and so forth. The southern edge of this forest seems to lie where the average monthly temperature exceeds 42°F. for five and a half months in the year. To the south of this line we have the Lake Forest types in the east (where the rainfall is over 20 inches a year); and the Prairie grasslands in the centre (where the rainfall is below 20 inches a year). Quite a different type of vegetation, consisting of forests of various pines, firs, and spruces, is to be found in the fold mountains of the western part of the Dominion. The best timber is now to be found along the coast and in the islands to the north of Vancouver.

Regional Geography

Since other articles in this symposium deal with the industries of the Dominion, it will be well in these closing paragraphs to describe how the environment and human interests are linked in the various regions of the Dominion. In a recent volume on Canada[1] I have found it advisable to subdivide the Dominion into twenty distinct regions. These have not much relation to the political boundaries in use for most statistical purposes, but in the present necessarily brief account it is better to compromise somewhat and use the following subdivisions: (1) Newfoundland and the Maritimes; (2) Southern Quebec and Ontario; (3) Prairie Provinces; (5) Southern British Columbia; (6) The Clay Belt; (7) Peace River Area; (8) The Empty Lands. Since later sections of this study deal primarily with the first five divisions, more space will be given to the other divisions than their scanty populations would seem to indicate.

Newfoundland and the Maritimes

Newfoundland and the Maritimes Province are linked by their common structure; for throughout them, the ancient folds—which dominate the shape of the coasts, the direction of the valleys, and so forth—are directed along northeast-southwest lines in accord with their geological development. Drowned portions of these folds produce the Bay of Fundy and the numerous elongate bays of Newfoundland. Newfoundland is essentially a plateau, sloping from about 2,000 feet in the west down to 500 feet behind St. John's in the east. The rocks belong to the older Paleozoic or to the still more ancient Shield, and give rise to poor soils. The chief prospects of future agriculture are to be found in restricted depressed areas (graben) in the west along the Humber Valley, and near Codroy. Valuable iron mines occur at Wabana near St. John's, and zinc mines at Buchans in the centre of the island. Fisheries have always been very important, but the major resource of the island is the paper-pulp industry, based on the coniferous forest. This forest should be most carefully regenerated after the larger trees have been taken, for the writer sees no prospect of other crops in most of the island.

The climate is much more attractive only a hundred or so miles to the south. In the Maritimes we see again the same custal folds, but a series of younger formations occupies the shores of the Bay of Fundy. These contain valuable coal near Truro; other outlying seams occur near Sydney. The youngest beds occur in the Prince Edward Isle and along the Cornwallis Valley, and here agriculture flourishes in the form of large crops of hay, oats, potatoes, buckwheat, apples, and so forth. The valley of the St. John River in the west also contains valuable stretches of river silt, growing much the same crops. Pulp and fisheries are also important.

Southern Quebec and southern Ontario

Southern Quebec and southern Ontario form the great industrial area of the Dominion. The industries are based primarily on the proximity of the Pennsylvania coal or on the unrivalled hydro-electric resources of Niagara and of the rivers flowing in falls off the hard rocks of the Shield—as near Ottawa and Three Rivers. The soils, based on the Paleozoic rocks, are fairly fertile, so that oats and hay are the main staples; but owing to the hot continental summer, such crops as tobacco, grapes, and maize are grown along the southern margins of this region. In the fold-rocks of the Appalachians are the world's greatest asbestos mines at Thetford Mines (Quebec). Oil, gas, and salt of considerable local importance are found in the level-bedded rocks of the London (Ontario) region. A belt of important towns extends all along the St. Lawrence waterway from Quebec to Windsor; and the two largest cities (Montreal 903,000 and Toronto 667,000 population in 1941) are sited here.

The Prairie Provinces

In the three Prairie Provinces—Manitoba, Saskatchewan, and Alberta—the resources improve as we journey to the west. In Manitoba the northern portion consists of sterile Shield with a cool summer, so that settlement is confined to the southern half. Here is the densest wheat agriculture in Canada. Saskatchewan has by far the greatest area under crop. Agriculture will spread north into the taiga, as the good soils are completely utilised in the centre of the province. Alberta contains none of the sterile Shield, and as we have seen, the summer isotherms are very favourable to its agriculture even in the far north. Of great importance are the rich resources of coal, which are said to rival those of the Bohemian and Donets areas in Europe. These have led to population densities in Europe of more than 60 to the square mile, whereas in Alberta few districts today have more than 10 to the square mile. The tourist trade of Alberta, based on the scenery of the Rockies, is also an asset lacking in the other Prairie Provinces. Here on the prairies adjacent to the Rockies are the chief sheep and cattle ranches of the Dominion. The Bow and St. Marys rivers flow east to the drier lands near Lethbridge, and here accordingly is the sole large area of irrigated land in Canada.

Southern British Columbia

The geography of British Columbia is entirely different from that of any other region. High mountain ranges and deep valleys with large rivers extend north-south through the province. Hence large areas suited for close settlement are restricted to the delta of the Fraser River, where more than a half-million people are living, or to the elevated basin in the interior which surrounds Prince George. Here is the best unoccupied farmland in the province, but the rainfall and temperature conditions make the growing of any but the usual northern crops of hay, oats, and potatoes rather precarious. Along the floors of the valleys farther south are remarkable river terraces, and these lend themselves to irrigation for fruit, tomatoes, and so forth. Timber is a great asset in the wetter western mountains, and the granitic rocks of the Coast Ranges and of the Selkirks have led to the establishment of many mines, as already mentioned. Though the total resources of the province are far greater than those of tiny Prince Edward Island, it is worthy of note that owing to the adverse topography in British Columbia the total amount of croplands is almost the same in the two provinces. Fisheries and paper pulp are of course of great importance in this province also.

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[1] *Canada, an Advanced Geography*, 161 maps, London: Methuen and Co., 1947.

Clay Belt and Peace River areas

The area in Canada where recent pioneer settlement has progressed farthest is probably the Clay Belt, well to the north of the closely settled areas of Quebec and Ontario. Here at the close of the Ice Age a colossal lake—far larger than Lake Superior—was held back by the ice-cap to the north. In this lake considerable depths of grey clay were laid down, resulting from the erosion of the rocks by the ice. This clay is now available for agriculture, and offers much better soil than the ordinary glacial till covering the rest of the Shield. Accordingly, from Hearst in the west to Senneterre in the east, we find a string of farm settlements in this clay area, which is said to cover about 30 million acres. Farming, however, is limited, as the clay is patchy in depth, with much useless peat. In the same area are the gold mines of Timmins, the copper mines of Noranda, and the nickel mines of Sudbury. These are among the world's greatest, and offer markets for the sale of crops grown on the adjacent Clay Belt.

Somewhat similar in its pioneer aspects is the Peace River area in the west of Alberta. It spreads into adjacent British Columbia, and gives a living to thousands of farmers, who began to flock into this area as late as 1910. By 1921 wheat to the extent of 58,000 acres and oats to 85,000 acres were being cultivated. Progress has been very marked in the succeeding twenty years; and the most northern farms are now to be found in the vicinity of Fort St. John in British Columbia.

The Empty Northern Lands

Since the early days of the fur trade there have been settlements along the Mackenzie, Yukon, and Liard rivers associated with that trade. The controls determining population have already been discussed. There is no doubt in the writer's mind that the farms of the near future will be sited along the northern fringe of farms in Saskatchewan and Alberta. The first new district will probably be along the Liard River to the north of Peace River. While an oats and hay economy may some day arise in the central Mackenzie River area, we may safely put this stage beyond the time when the Clay Belt, Prince Albert, and Liard River areas are very much more fully exploited.

As regards the vast areas of the northern taiga and the islands of the Canadian Archipelago, there seems no likelihood of there being any great change in their way of life in the near future. No doubt other mines akin to the remarkable radium mine of Great Bear Lake or the Yellowknife goldfield of Great Slave Lake will be discovered; but they are likely to lead only to temporary occupation, as is the case with all metal mines. While they help to open up new lands, they do not contribute to the welfare of a nation to the same degree as do lands where permanent agriculture is possible. Fur, caribou, and pulp will always be the chief assets of these areas.

It is worth noting that the northern lands are on the direct air routes from the dense factories of Pittsburgh to the developing millions of Far Eastern Asia. We shall see northern Canada and the Canadian Polar Archipelago of increasing importance in world trade for this reason.

THE ARTS IN CANADA

By HERMAN VOADEN

First President Canadian Arts Council.

THREE questions will interest our readers. Do the arts in Canada reflect the life of the Canadian people? Are they important, not only to Canada but to the world at large? Are they important to Canada and the world at large?

The answer to all three questions is a qualified affirmative. They do, in some measure, reflect Canadian life, and are, to a degree, important; they are beginning to mean something to our people. The reasons why they are not more representative, important, and popular may be briefly noted.

Canada is a young country whose energies have been absorbed by the task of achieving nationhood and fighting two long wars. There has seemed to be no time or place for culture. As a people we have been dogged by an inferiority complex that springs from our history as a colony. This has resulted in imitativeness in much artistic effort, and an unwillingness on the part of most Canadians to praise or purchase the work of our artists until it is recognised abroad. Our youthfulness has other aspects in our conservatism and puritanism. Our writers and painters are still fighting the battle for complete freedom of subject matter and treatment, a battle which was won a generation ago in the United States, and two generations ago in Europe. Our racial background has made difficult the development of a common national character and outlook, and its expression in the arts. The original Canadians were Eskimos and Indians; their civilisation has had little influence on our own. Then came the French, who in turn were conquered by the English. This was a wound slow to heal. French language and culture are perpetuated in the British North America Act. Immigration of New Canadians from Europe, particularly to Western Canada, has further complicated the picture. In time this diversity will enrich our artistic expression, but thus far it has operated in the main negatively. Moreover, the arts have not been sufficiently stressed in our education; engineers, doctors and dentists have not been given a liberal education, and the narrowly intellectual training of arts students has not prepared them for leadership in the cultural life of the community. Primary and secondary education have likewise failed to give sufficient attention to the arts. Canada is not a nation geographically, and the isolation of her various regions and their nearness to an overwhelmingly great power have hindered the development of an indigenous culture. The Maritime provinces are close to New England, separated from Ontario by an alien Quebec; a vast rock and tree wilderness lies between the East and West. British Columbia, beyond a great mountain barrier, is part of the Pacific North-West. And lastly there is the psychological factor. Canadians have maintained pioneer and frontier attitudes toward the artist. He has been a strange fellow, suspect, and little regarded. He has had no place in our society.

As a result of these factors the audience in Canada genuinely interested in creative work has been small, and few Canadian artists have been able to live by the sale of their work. A considerable number have left the country; their loss is a grave one to Canada. The majority stay and earn their living at other pursuits, devoting to creative work what time they are able to take from their bread-winning. This is the chief reason why Canadian art is not more significant in terms of quantity and quality than it is; the bulk of it is the product of spare-time effort.

But the situation is changing rapidly, and there is reason to believe that the years through which we are now living will be regarded in after times as the beginning of a great cultural renaissance in Canada. The country has emerged from the pioneer stage. Third during the war in trade, and fourth in industrial production, it is now a major power; its citizens have increasing wealth and leisure, and they are beginning to be interested in the arts. The old dependent colonial spirit is giving way to a new pride in our greatness as a nation—a pride heightened by our achievements in the war. With maturity we are losing our naïvété about moral and artistic conventions. The pieces in what John Murray Gibbon, in his book of the same name, calls " the Canadian mosaic " are beginning to fall into place. Our schools and universities are training the new audiences and the new artists.

The Government has recognised the dangers inherent in the geographical isolation of Canadian regions and their nearness to the United States, and has partially nationalised the two mechanical media of education, information, entertainment and culture—the radio and film. The Canadian Broadcasting Corporation is supported by an annual license fee, and controls all national network broadcasting. The National Film Board receives generous support from public funds, and operates in the field of the documentary film. These great national organisations, under independent boards or commissions, are playing a significant part in the development of Canadian character and art. To mention only two examples, the C.B.C. commissioned two operas: " Transit Through Fire," a radio opera, and " Deirdre of the Sorrows," a full-length work. The music for both was written by Healey Willan, one of Canada's most distinguished composers, and the librettos by John Coulter, well-known Irish-born Canadian playwright. The C.B.C. has also presented many programmes of music by other Canadian composers. It has sponsored fine Canadian radio play workshops, notably the annual Toronto Series under the direction of Andrew Allan, which began as Stage 44, and in its '48 season, attained fresh importance by increasing its programmes to a full hour length. Canadian playwrights, actors, directors, composers, instrumentalists, singers and conductors are making a genuine contribution to Canadian culture and receiving a good living as a result of the efforts of this national organisation.

In the same way the National Film Board, in its animated films, its films on folk music and handicrafts, and its series on Canadian paintings and sculpture, is interesting itself in the arts. It is making a substantial contribution to the documentary film. It is employing first-rate musicians, artists and theatre workers in increasing numbers.

There is also a measure of government support for the visual arts in the annual grants that are made to the National Gallery at Ottawa, which has purchased an admirable collection of Canadian paintings, and circulates exhibitions of Canadian art nationally and internationally. During both world wars the government employed our leading artists to record the achievements of our fighting forces, and during the last war we had the beginnings of a national theatre in the army, navy, and air force shows.

Just as significant is the contribution of many of the provinces to the cultural growth of the country. Quebec has led the way, with free instruction for its most talented music students, and prizes and scholarships for its writers and painters. In several provinces the arts are integrated with recreation programmes, and with adult education programmes directed by departments of education and extension branches of universities. Alberta has sponsored the Banff School of Fine Arts, and is the first province to encourage artistic activity directly with its Cultural Development Act of 1946, which provides for library, music, drama, and visual arts boards under a co-ordinator responsible to a Minister. In 1948 Saskatchewan formed a Saskatchewan Arts Board.

This government support is the result of a new and encouraging attitude on the part of the Canadian people: an attitude friendly to artists, accepting them at last as valuable members of society. Substantial creative achievements, particularly in poetry, the novel and painting, are in part responsible for this change of attitude; Canadians are beginning to be proud of their artists. [Another factor that has helped, and may be expected to be of greater assistance in the future, is the establishment of the Canada Foundation to receive gifts and endowments from private funds for the promotion of Canadian thought and culture at home and abroad.]

But most important has been the leadership given by artists themselves to the forward-minded elements in the community in promoting this new attitude. Spurred on by what was done in the United States in the depression years to bring the arts to the people, and by the striking support given the arts by the British government (in the British Council and C.E.M.A., now the Arts Council of Great Britain) the art societies of Canada, led by the Canadian Federation of Artists, worked energetically for years to propagandise their cause. These efforts culminated on June 21, 1944, when sixteen national cultural organisations presented the " Ottawa Briefs " to the Reconstruction Committee of the House of Commons. There were many proposals, most of them designed to meet the fundamental problem: thousands of artists forced into non-creative work in the big cities; millions of people across the land who have never seen an original work of art, nor attended a symphony concert or a professionally produced play. The two major proposals were that grants-in-aid should be made available to encourage the building of hundreds of community centres, and that a government body should be set up to encourage the arts and to channel plays, operas, concerts, ballets and films in circuits through these community centres across the land.

Now strongly organised as the Canadian Arts Council, these sixteen organisations are pressing with increasing public sympathy and with considerable success for the implementation of these and other far-reaching proposals. When the story of these years is finally told, much of the credit for making Canada culturally-minded will be given to the artists themselves, who in a time of crisis were aware of their responsibility and opportunity, and seized it resolutely and effectively.

Literature

Poetry.—The most important Canadian arts are literature and painting. Among writers, our poets were the first to reflect the spirit of the Canadian scene and to produce an art of sufficiently high quality to merit acclaim at home and abroad. These poets were the so-called " Group of the Sixties," namely Charles G. D. Roberts, Bliss Carman, Archibald Lampman, and Duncan Campbell Scott, all born in 1860, 1861, or 1862. The leader of the group was Roberts, for over sixty years a dominant figure in Canadian literary life. He was a national poet, singing the potential greatness of the young land. Nature was his chief theme. He achieved an international reputation, not only as a poet, but as a writer of animal stories. Even more famous abroad was his cousin, Bliss Carman, in whose shorter lyrics there is a tranquil beauty and lovely imagery that are deeply satisfying. A greater figure than either of these is Archibald Lampman, the outstanding poet of the Canadian countryside. Like Lampman, Duncan Campbell Scott records the pageant of the Canadian year. His strength is shown also in narrative and reflective verse. His workmanship is original and careful, and his poetry ranks with the best in our literature. Three women who are remembered for their verse are Isabella Valancy Crawford, Marjorie Pickthall, and the Indian poetess, Pauline Johnson. Two poets should be mentioned for the service they rendered in widening the audience for poetry at home and abroad: William Henry Drummond, poet of the French voyageur and habitant, and Robert Service, a rough Canadian Kipling who has celebrated the strong men of the Alaska gold rush. Other well-known names are Charles Mair, George Frederick Cameron, Wilfred Campbell, and Frederick George Scott.

The revolt against the Group of the Sixties (the Maple Tree School, as it has been called by its detractors) began after the first world war, and was led by a band of young Montreal poets who were influenced by the new poetry of T. S. Eliot, and Ezra Pound. Their spokesman, A. J. M. Smith, has referred to them as belonging to a " cosmopolitan tradition." One of the most important of these younger poets is Abraham Klein, whose poetry, steeped in Jewish history and legend, and rich and vigorous in style, has a depth and magic that are compelling. Another is F. R. Scott, whose poetry has been widely praised for its power and maturity of thought, and the high level of its technical accomplishment. In the group, or allied to it, are Leo Kennedy, Robert Finch, Dorothy Livesay, Anne Marriott, and Ralph Gustafson. One of the most original of these young poets is Earle Birney, author of the brilliant mountaineering poem, " David."

In contrast to these experimental poets are those continuing to write in the conservative and traditional vein. Among these may be mentioned Louise Morey Bowman, Audrey Alexandra Brown, George Herbert Clarke, Arthur S. Bourinot, Kenneth Leslie and Wilson Macdonald.

Between the older and the younger poets is a towering figure, E. J. Pratt, who is recognised abroad as the foremost living narrative poet. In the power of his tragic and heroic verse he is unique in Canadian poetry.

Fiction.—The Canadian novel did not come of age until a generation after Canadian poetry reached its maturity. Our earliest novels were in the romantic historical tradition: Major John Richardson's " Wacousta "; William Kirby's " Golden Dog "; and the novels of Gilbert Parker. The fiction of Ralph Connor and L. M. Montgomery, while making no pretence to literary merit, has been widely read.

In the twenties our first successful novelists appeared—Mazo de la Roche, Morley Callaghan, and Frederick Philip Grove. Miss de la Roche in her popular Jarlna series, and Mr. Callaghan in his short stories and novels of Toronto, won the approval of a wide and discerning audience abroad, but in doing so played down the regional aspects of their writing. This was not done by Mr. Grove, whose " Settlers of the Marsh " is perhaps the most significant treatment of life. in the Canadian West. Grove is also known for his sketches, " Prairie Trails " and his autobiography, " In Search of America." Other novelists whose work first appeared in the twenties were Robert James Campbell Stead, Laura Goodman Salverson, Arthur Stringer and Martha Ostenso.

The late thirties and forties have marked the appearance of a new group of novelists who have been successful in Canada and other countries in writing of contemporary Canadian life. Chief among these is Hugh Maclennan. Mr. Maclennan is the author of " Two Solitudes," which faces the fundamental problem of the relations of French and English in Canada. It is one of our most mature and important novels. Gwethalyn Graham's " Earth and High Heaven " deals with the conflict between Jew and Gentile in Montreal. It has been well reviewed and widely read; it is remarkable not only for its treatment of a social problem but for its satisfying characterisation and vivid, effective style.

Other novelists who have dealt effectively with the contemporary scene are Philip Child, James Sinclair Ross, G. Herbert Sallans, Mary Quayle Innis and Allen Roy Evans. In the field of historical fiction the leading place goes to Thomas H. Raddall, author of " His Majesty's Yankees " and " Roger Sudden ". Others who have been successful in this genre are William R. Bird, Grace Campbell, Frederick Niven, W. G. Hardy, Alan Sullivan, Mabel Dunham, Evelyn Eaton, Maida Parlow French, and F. D. McDowell.

Non-Fiction.—Among writers of non-fiction, space will permit mention of only two. The greatest Canadian humourist since Judge Haliburton of " Sam Slick " fame was the late Stephen Leacock, who in books like " Nonsense Novels," "Literary Lapses " and "Sunshine Sketches of a Little Town " gave delight to English readers the world over. Another unique figure was Emily Carr, British Columbia artist, whose " Klee Wyck " brought to prose the strange and remarkable talent which made her one of Canada's most important painters.

French Canadian Literature.—Only the briefest reference can be made here to French Canadian literature. The most promising of the younger novelists is Gabrielle Roy, whose first work, " Bonheur d'occasion," has been favourably compared with the novels of Dickens. Roger Lemelin has won praise for a mature study of life among the lower classes in Quebec City, " Au Pied de la Pente douce." Other contemporary novelists are Germaine Guèvremont, Yves Thériault, Léo-Paul Desrosiers, Abbé Félix-Antoine Savard and Robert Charbonneau. Poets whose work has been well received in the past decade include Roger Brien, Anne Hébert, and François Hertel.

Of works translated into English the best known are Hémon's " Maria Chapdelaine," Rivard's " Chez Nous " and Ringuet's " Thirty Acres." Although a Frenchman, Hémon's account of habitant life in the remote Lake St.

John district is so authentic and beautifully told that it is justly acclaimed a Canadian classic. The translation by H. W. Blake is admirable.

Visual Arts

Painting.—Canada's first important painters were Paul Kane, who recorded his impressions of the Indians, and Cornelius Krieghoff, who painted the life of the Quebec habitant with gusto and humour. Two artists are outstanding among those influenced by the Dutch and Barbizon schools in the latter half of the nineteenth century: Horatio Walker, with his paintings of the Isle d'Orleans, and Homer Watson, who found his subject-matter in the valley of the Grand River, Ontario. A more important and valuable influence was that of French impressionism, effectively applied to the Canadian scene in the canvasses of Maurice Cullen and M-A de F. Suzor-Côté, and above all in the paintings of James Wilson Morrice, one of Canada's greatest painters.

The artists who created Canada's unique tradition in landscape painting came together in the years before the first world war. The most picturesque of these was Tom Thomson, woodsman, guide and artist, whose brilliant, sensuously rich sketches and sudden and strange early death have made him almost a mythical figure in Canadian art. Three years after Thomson's death these young painters formed, in 1919, the Group of Seven, launching a movement of the utmost importance in the life of the nation. They rejected the academic tradition as inadequate to express the new subject-matter they had discovered in Canada's wide margins to the north—a subject-matter entirely our own and well-nigh inexhaustible. They employed a technique that was broad, dramatic and decorative in conveying what they felt about their land. They were animated by a high purpose, an idealism, a sense that they were contributing to our nationhood something of the spiritual clarity, spaciousness and power of the north. Their paintings have touched an answering note in the hearts of many Canadians, to whom they are now associated with the feelings of love, pride and hope that are entertained for Canada. The most lyrical, and perhaps the greatest painter of the Group was J. E. H. MacDonald. Arthur Lismer's canvasses are striking in movement and power; he is also known internationally as a teacher who pioneered in developing new techniques in art education for children. Jackson is the wanderer of the Group; Canadians know their wide borderlands through his subtly-coloured and rhythmic canvasses. Lorne Harris is the mystic; his progress has led him inevitably from the austerity of his early studies to his later abstractions. F. H. Varley is notable for his portraits as well as his landscapes. Frank Carmichael and A. J. Casson have made a distinct contribution to Canadian water-colour painting. Later members of the Group were E. H. Holgate and L. L. Fitzgerald. A painter who was encouraged by the Group was Emily Carr. Their philosophy earned its richest rewards in her sombre, magnificent landscapes of British Columbia totem poles, mountains and forests.

Even in the twenties, when the influence of the Group was at its highest, other able painters were developing their individual styles: Clarence Gagnon, David Milne, Adrien Hébert, A. H. Robinson and Marc-Aurèle Fortin. In the thirties and forties the range of significant, creative work widened tremendously. To-day painting in Canada is a vital and important art. Distinguished painters like Stanley Cosgrove, Louis Muhlstock, Bertram Brooker, Kathleen Munn, Eric Goldberg, Maurice Raymond, Paraskeva Clark, Jack Bush and William Winter are doing admirable work in many styles and with a wide variety of subject. Peter Haworth, Allan Harrison, B. Cogill Haworth, Yvonne McKague Housser, L. A. C. Panton and Isabel McLaughlin are accomplished landscape painters. Vivid genre work is done by André Biéler, Jean-Charles Faucher, Pegi Nicol and Henri Masson. In figure studies and portraiture Jack Humphrey, Prudence Heward, Lillian Freiman, Lilias Newton, John Alfsen, Jori Smith, Simone Denechaud, Kenneth Forbes and Denyse Gadbois are outstanding. Fritz Brandtner is an expressionist; abstractionists are Marion Scott, Edna Tacon and Gordon Webber. Mention should be made of the interesting " primitive " paintings by Quebec painters like Mary Bouchard, and the folk-imagery of Jean-Paul Lemieux's canvasses.

A number of our best young painters, including Charles Comfort, Carl Schaefer, Jack Nichols, Will Ogilvie, Jack Shadbolt and George Pepper, served as war artists during the second world war. Their efforts were necessarily limited to a kind of reportage or illustration, but their experiences have enriched their subsequent painting both in technique and content.

The most interesting development of the last ten years is the appearance of a group of Montreal painters who have given leadership to the " international " movement in our art, as opposed to the " regionalism " of the Group of Seven. These artists acknowledge the influence of J. W. Morrice and the veteran Montreal painter, Ozias Leduc, among Canadian painters. They stress purely visual qualities of form and colour. They are very good painters, and their work is attracting wide attention. John Lyman, Alfred Pellan, Paul-Emile Borduas, Goodridge Roberts, Jacques de Tonnancour and Philip Surrey are perhaps the leading figures in this group. Between them and the " regionalists " there is a healthy rivalry. John Lyman is the dean of the group, and the founder of the Contemporary Art Society. Pellan, the cubist, is a colourful figure with a flair for showmanship; he is also a gifted and dynamic painter. Borduas, the surrealist, is linked with Utrillo and Chagall. His young followers, who include Pierre Gauvreau and Jean-Paul Riopelle, presented an exhibition called " Automatisme " at the Luxembourg Gallery in Paris in 1947. Roberts is placed with Morrice as a painter of " our most beautiful landscapes," avoiding the " epic expression, theatrical and mannered," of the Group of Seven. This ferment, this interplay of national and international forces, is further evidence of the vitality of painting in Canada.

Sculpture.—Our sculpture shows the same abundance of talent and variety of expression that characterise our painting. The best-known Canadian sculpture is Walter Allward, creator of our national war memorial at Vimy Ridge. Four important names should be linked with the Group of Seven. The work of Emanuel Hahn and Elizabeth Wyn Wood, and to a lesser extent that of Frances Loring and Florence Wyle, occasionally shows the " national " and " northern " influence of the Group in subject-matter and style. Among many others who are doing distinguished work are Jacobine Jones, the French sculptors Henri Hébert and Sylvia Daoust, and younger artists like Donald Stewart, Dora Wechsler, Byllee Lang and Stephen Trenka.

Hand and Applied Arts.—Canada has a rich inheritance in her native and folk arts, ranging from the decorative arts of the Eskimos and Indians (especially the West Coast

Indians, famous for their totem poles) and the ecclesiastical wood-carving, the weaving, spinning and rugmaking of French Canada, to the needlework of New Canadian immigrants in the West.

While Canada is far behind nations like Sweden and Mexico in encouraging art in everyday life, many of her governments, universities and schools, as well as her handicraft guilds and co-operative organisations, are actively engaged in improving standards of design, interesting farm and urban dwellers in handwork of all kinds, and increasing public support for the excellent work of her professional craftsmen. There is also a growing interest in the application of good design to industry, and the value of well-designed products in increasing our export trade.

Architecture

It is interesting to find that while our painting is entering upon an era of intense individualism, our most progressive young architects are advocating " anonymous " architecture. The architect, in their view, should be the servant of the people, interested in town planning and in co-operative and large-scale housing projects. He should work more closely than before with the engineer, the artist, and the social scientist. Because the building industry will be based increasingly on machine production, designs should be simple, clean and functional, in the current international style, with such variations as native materials, climate, and the mechanical and engineering genius of our people will dictate.

This approach is already evident in public buildings and homes that have been built in Canada. Many will feel that it is a great improvement over the hybrid designs of the long period of the " Battle of the Styles " that extended from the middle of the last century to the present. It may be hoped and expected that two important native traditions will continue to flourish, and possibly to blend with this newer international style: French-Canadian architecture, based on the old Norman farmhouse, and the attractive and dignified tradition seen in the homes of early English settlers.

Music

It is natural that music should be one of the younger arts in Canada, since it requires an advanced degree of culture and civilisation. But in Canada, as abroad, the development of a public taste for good music in the last ten years has been astonishing. The chief factor has of course been the radio, which has made available, even to the humblest, the music of great symphony orchestras and the world's most famous concert artists. In Canada popular appreciation of music is being encouraged effectively by the music courses in public and high schools, and by the instruction and leadership given by the conservatories and, more recently, the universities. Major Canadian cities now have symphony orchestras which give concerts both summer and winter. The Canadian Broadcasting Corporation provides many musicians with a steady source of income. Community concerts by outstanding Canadian and American performers are increasingly popular. The whole nation is becoming music conscious. It is safe to say that the average Canadian citizen is more interested in good music than he is in good literature, good painting or good theatre.

Compared to our performers, the lot of Canadian composers is not a happy one. Only in the last few years have there been adequate opportunities for training in Canada. Limited facilities are available for publishing music. There is not sufficient demand for new native music to enable composers to give all their time to writing. The majority of them are teachers; others are conductors and performers. An increasing number of the younger men are writing background music for radio and films.

Our composers may be divided into three groups, according to the influences shown in their writing. The English school is led by Healey Willan, with more than two hundred works of all kinds. Senior composers of this group are Sir Ernest MacMillan and Leo Smith. Younger composers, with more modern techniques, are Godfrey Ridout, Robert Fleming, Jean Coulthard Adams, Violet Archer and Leonard Basham. French Canadian composers look to Paris and to the wonderful folk-song tradition of their people for their inspiration. Prominent among them are Claude Champagne, Alfred Laliberté, Hector Gratton, Dr. J. J. Gagnier, Lionel Daunais and the boy prodigy, André Mathieu, who was composing at the age of four. Finally there are the composers influenced by European and Americam models: Arnold Walter, Alexander Brott, Eldon Rathburn and Louis Applebaum. The extreme or rebel position among this group is held by Barbara Pentland, who studied with Copland, and John Weinzweig and his pupil, Harry Somers, who are influenced by Schonberg and Berg. In July 1948, John Weinzweig's " Divertimento for Flute and Strings " was awarded second prize in the chamber music section of the Olympic Arts Competition. No first prize was awarded in this section.

There is good reason for hope that as the Canadian musical audience grows and its tastes become more catholic, a genuine and important school of Canadian composition will emerge from the experimentation of the present stage. Idioms will be found suitable to our temper and outlook, and coloured by the Canadian scene, and by our history and folk traditions. There is already tremendous activity among our composers, and a high level of creative work which promises well for the future.

Opera.—Apart from some short ballad operas written in the twenties for folk festivals presented by the Canadian Pacific Railway, and the two works commissioned by the C.B.C. mentioned in the introduction, Canada has no operatic literature. But interest in the art is growing, and with the introduction of advanced operatic training in our largest conservatories especially the Senior School of Royal Conservatory of Music in Toronto, more developments may be expected. Opera is, however, the most expensive of the arts, and it will probably not come of age until there is a national theatre, or until some form of subsidisation is offered to assist effort in this field.

Theatre

Like music, the professional theatre is a cosmopolitan art flourishing only where there are large congregations of people and specialised audiences and performers. Perhaps this is the reason why literature and painting are further developed and more important in Canada than music and theatre. They may be created and enjoyed individually. They do not require the co-operation of other artists and the inter-play between performers and audience. Hence our losses to the United States are greatest in these two arts. Dozens of Canadian stars of stage, film, music and opera shine in the American entertainment sky.

For decades there was a flourishing professional theatre in Canada, but the advent of the movies, and especially the talkies, dealt it a death blow. The theatres everywhere are now closed, torn down, or given over to films, except for a few large centres in the east, where visiting attractions, chiefly from Broadway, are shown. Interesting attempts to revive the professional theatre with Canadian talent are being made. In Montreal the gifted and popular comedian Fridolin has won a continent-wide reputation with his annual revues and is now writing and presenting his own plays. Les Compagnons, Montreal repertory players, perform constantly throughout Quebec, and, less frequently, in other parts of Canada and in the United States, the actors remaining anonymous. Vancouver has its municipal " Theatre under the Stars " for light opera and operettas. For years the Extension Department of the University of British Columbia sent out touring players to smaller centres; these were followed by the professional tours of the Everyman Company. In the summer of 1948 the Saskatchewan Arts Board sponsored the Stage Society of the University of Saskatchewan in a tour that reached sixty villages, towns and cities of the province. There will be more of these efforts in the future. Even without further government assistance, a professional theatre that is largely Canadian is bound to develop. With government assistance the development will be rapid indeed.

The decline of the commercial theatre in the thirties was matched by a tremendous increase in amateur theatre activity, the whole movement encouraged by the regional and national contests of the Dominion Drama Festival. These Festivals performed a unique service, not only in arousing public interest in the theatre, improving production and acting standards, and encouraging native playwriting, but in cementing national unity. With the war it was necessary to abandon the Festivals. But drama was so firmly entrenched in the West, thanks to the leadership of universities and departments of education, that dramatic activity there increased during the war and flowered in the Western Canada Theatre Conference, an organisation interested in encouraging all phases of theatre. In Montreal too there has been notable activity, led by the Montreal Repertory Theatre, and other groups. In London, Ottawa and Victoria, community drama organisations, strongly supported, own their own theatres. Both Western Canada and Montreal have seen exhibitions of theatres designs, showing a new interest in this phase of the art.

With the war over, the Festivals have been successfully resumed. Canada's most famous amateur theatre, in Hart House, Toronto, has been given to the University of Toronto, and once again has a full-time director. Amateur drama is again becoming a potent force in the cultural life of the country. The new support being given the arts by governments and public alike holds out exciting possibilities for amateur as well as professional drama. The hundreds of community centres that are likely to be built will have theatres. In these theatres amateur groups will have the facilities they need so badly and touring professional troupes will have the stages and audiences that now are lacking.

Plays.—Dramatic literature grows and flourishes in direct proportion to the vitality of the theatre. The great period of Hart House Theatre in the twenties produced the important realistic drama of Merrill Denison and interesting work by Mazo de la Roche, Duncan Campbell Scott, Fred Jacob and Marjorie Pickthall. The Festivals of the thirties encouraged the development of authors like John Coulter, Hilda M. Smith and Elsie Park Gowan. The thriving dramatic activity of the last decade in the West has produced at least one playwright who has very considerable talent, Gwen Pharis. Our most promising younger writers are now giving their attention to writing radio drama which, while to a degree ephemeral and unsatisfactory, pays well in terms of worldly goods. Outstanding in this field are Fletcher Markle, Len Peterson, Lister Sinclair and Gerald Noxon.

French Canadian dramatists whose plays have been produced in the last thirty years include Madame Yvette Gouin, Marie-Claire Daveluy, Henri Letondal, Leopold Houlé and Father Gustave Lamarche.

Ballet.—Canada has two excellent semi-professional ballet organisations directed by Boris Volkoff in Toronto and Gweneth Lloyd in Winnipeg. There are many other dance schools doing commendable work. But like opera and the professional theatre, ballet will probably have to wait for government support before it can play a substantial role in our national life.

Films.—Mention has been made of the work of the National Film Board in the short or documentary film. Recent years have seen the formation of Canadian film companies to make full-length features for the entertainment field. It is hoped to market these in the United States, Britain and other countries, as well as in Canada. The procedure is to import English or Hollywood " name " stars and the necessary technical and directing personnel, and to complete the company with Canadians. It remains to be seen how successful these projects will be, both from an artistic and a popular point of view.

THE TOURIST ATTRACTIONS OF CANADA

By D. LEO DOLAN

Director, Canadian Travel Bureau.

CANADA'S borders encompass a huge territory. Halifax, on the Atlantic, is closer to Antwerp than it is to Vancouver, on the Pacific. And within this vast region lie an infinite variety of vacation opportunities, and tourist attractions to satisfy every inclination.

Not the least of Canada's natural attractions are her twelve million friendly, happy, democratic people. Canadians live in great cities, and small towns, in quaint villages and isolated farms. Hospitality is also an important Canadian tradition. Canadians like visitors.

Some find retreat from an over-civilised world in the fascinating wilderness of Canada's mountains and forests.

Others prefer the urbane comforts of her great hotels or gracious relaxation in the sophisticated resorts. Nor must this preference be absolute. From Ottawa's famed Chateau Laurier, in the heart of the capital, peer of the world's finest hostelries, it is a scant thirty minutes by auto into unsullied mountain country where the seeker after solitude may see no human for days or weeks. And this rapid transition from the complex and cultivated existence to the primitive is possible everywhere in Canada.

Canada's scenic charm is tremendous. Both coasts offer sea-scapes of immense beauty. The Canadian Rockies present snow-capped peaks and glaciers, mountain lakes, deep valleys and dense forests. Further east unfold the broad expanse of prairie, the imposing grandeur of the Great Lakes, the picturesque islands of Georgian Bay and the Upper St. Lawrence, the countless lakes which dot Ontario and Quebec, the wooded river-valleys of Eastern Canada, the rounded slopes of the Laurentians and the cool forests and streams of the Atlantic sea-board provinces.

Game and fish of myriad species abound from coast to coast. In the wooded and unsettled parts of every province there are moose, deer, bear, and small animals. Wild geese and ducks wheel their squadrons north in the spring and south with the approach of winter. Grouse are plentiful in the woods. Prairie chicken, pheasant and Hungarian partridge nest on the open prairie. The lakes breed countless waterfowl and fish.

Canada by its youth is denied the venerable monuments which have intrigued visitors to Europe for centuries. But the New World is rather less new than it was. Many episodes in Canada's history, recent by European standards are rich in national significance. More than 300 sites of historic value have been marked and maintained as national monuments. Many primitive settlements have been preserved or restored. These include Indian earth-works, forts and villages, French trading-posts and mission enterprises, sites connected with British exploration, and naval and military occupations in the long struggle for the possession of Canada.

Visitors to Canada never lack diversion. Fishing and hunting are superb. In the summer tennis and golf facilities are everywhere, swimming in salt or fresh water enjoyed by thousands. Fast power boats, sleek sailing craft, noisy outboard and humble canoe bring delight to boating enthusiasts. Exciting regattas draw throngs to many centres. Organised baseball attracts large crowds. Archery is popular. Horses for riding are available in most cities and resorts. In autumn, football contributes much to national entertainment before winter switches the emphasis to skiing, skating and hockey, tobogganing and curling. And there are pastimes which know all seasons, dancing in community halls or gay night clubs, radio and moving pictures; good theatres in larger centres, enthusiastic amateur dramatic organisations in smaller towns. Many cities have excellent symphony orchestras and choral groups. Canadian art is attracting wide attention and fine work is exhibited in galleries across the country.

Efficient transportation is of first importance to tourism. And in Canada transportation is the backbone of the nation politically and economically.

Canada's 42,000 miles of railway is exceeded in mileage by only the United States and Russia, both with populations far greater than Canada's. Two transcontinental lines, one privately operated, the other publicly-owned provide the basis of the railway network. Into these main systems flow a web of feeder and local lines. Rapid rail transport, in modern equipment and on dependable schedules is available everywhere.

Improved by canals representing a state investment of some $300 million, the St. Lawrence-Great Lakes waterway for inland shipping extends nearly 1,700 miles from the Atlantic coast.

In Canada there are 127,000 miles of surfaced roads. Motor carriers compete with railroads for passenger traffic.

Natural conditions stimulated a pioneer development of air transport in Canada. Rapid expansion led to the creation of Trans-Canada Airlines, a government corporation flying coast-to-coast on regular daily schedules. In addition to this mainline government service, there are many regional, privately operated lines concerning largely with feeder service into the north.

Among Canada's greatest tourist attractions are her National Parks, areas of outstanding scenic beauty set aside by law and dedicated to the people. In these regions of magnificent mountain scenery, beautiful Prairie lakeland and picturesque island-studded waterways are exceptional opportunities for life in the open. All the unspoiled natural beauty is maintained in these reservations and the National Parks provide vast outdoor museums for the study of natural history.

The growth of the National Park idea has been a most important social development of this century. The swift onrush of settlement in many countries brought needless destruction of natural beauty and wild life. When necessity for conservation became obvious, Canada fortunately possessed vast tracts where primitive and unspoiled conditions still prevailed. She has made generous provision for her future needs. Canada's system of National Parks embraces 18 units with a combined area of more than 29,000 square miles.

Canada's great natural assets as a tourist playground are spread between the rocky, wave-washed coasts of the Atlantic and Pacific to provide each province with its peculiar charm.

Nova Scotia, famed in New World literature, has countless harbours and inlets along its thousand mile coastline that offer rich dividends in scenery and sport. Cape Breton Island has its quaint Ile Madame, beautiful Bras d'Or Lakes and the new Cape Breton Highland National Park. Motor roads webbing the province give access to numberless lakes and streams which teem with fish.

In the province of New Brunswick seaside resorts dot the coast. The visitor may browse beside the peaceful Nashwaak or Oromocto rivers, or leave them for the turbulent Tobique or Nipisiguit which are the delight of anglers and canoeists. In the northern part of the province Mount Carleton looks down on a vast area interlaced by streams and dotted by lakes.

Many visitors are drawn to Prince Edward Island, Canada's smallest province, with its wide beaches, invigorating climate and pastoral beauty. The new Prince Edward Island National Park stretches for 25 miles along the northern coast. Basically agricultural and maritime, the Island also lists silver fox farming as an important industry, and tourists flock to the farms where these valuable animals are raised.

The French-speaking province of Quebec is the cradle of Christianity and civilisation in Canada. Her language and culture, her Franco-Norman architecture, her scenic grandeur, her domestic art, her sports, her climate and cuisine attract visitors the year round. Quebec is a province rich in romance and legend. Its glorious Gaspe Peninsula, its magnificient Laurentian mountains, its storied capital, Quebec, overlooking, from behind its ancient fortified walls, the majestic St. Lawrence, its forests teeming with game, its streams and lakes abounding in fish provide vacation thrills without limit. That part of the province north of Montreal and extending west to Lake Timiskaming is one of Canada's greatest winter resort regions.

All this is offered by Quebec, all this—and Montreal.

In Canada's largest city there is a blending of old world—France and modern America. Montreal lies on the mighty St. Lawrence and against Mount Royal from which its name is derived. In 1536, Cartier discovered the Indian village of Hochelaga, but not until 1642 was the city founded when the Sieur de Maisonneuve and his small band of religious enthusiasts christened their settlement Ville Marie. All the terrors and alarms of Indian hostility and colonial wars were visited on the little colony until Canada was placed finally under the British flag in 1763. Many relics of its early origin and glorious past are still to be found in what is today one of the world's greatest industrial and commercial centres.

Although 1,000 miles inland, the city ranks with the world's first seaports. At Montreal converges the shipping of the Atlantic and the Great Lakes and the railway traffic of half a continent.

Montreal is the financial centre of Canada, its commercial metropolis and the concentration point of hundreds of important industries. Culturally it has given much to the nation and to the world. Its buildings, its institutions, its parks, its cafes and its people are worth knowing.

Ontario is sometimes known as the lakeland province, but that description tells only part of the story. In the Ontario highlands are resorts catering to tastes sophisticated or simple. In the southern part of the province where population and industry are more concentrated, there are many cities with varied attractions.

Northern Ontario, once a little known region, is now opening its wealth of fish and game resources to the sportsman; and its mineral wealth to the miner.

In Ontario also is Ottawa, the capital of Canada, built high on a bold bluff about which winds the great Ottawa river, highway of the early explorers. Of primary interest are the Parliament Buildings of the Canadian people. This imposing group of three Gothic structures occupies the heights overlooking the river. The main building, set well back between the East and West Blocks, is crowned by the Peace Tower; a sky-piercing shaft visible from any direction for miles. Canadians feel that the impressive dignity and classic beauty of their Parliament Buildings are peerless in the world.

The dividing line between eastern and western Canada may be placed roughly in the lake-dotted, stream-crossed country north from Lake of the Woods to Hudson Bay. Westward lies Manitoba with a forest area three times more extensive than its arable land. Endowed with a wealth of lakes and rivers, Manitoba offers big game or waterfowl, paddling through enchanting waterways, or cruises down Lake Winnipeg to far away northern trading posts.

Saskatchewan has more prairie country than any other province. The northern edge of this fertile plain merges into the park belt, and north of this forest land interspersed with scenic lakes and rivers. In the heart of the province lies the beautiful Prince Albert National Park, 2,000 square miles of superb vacation territory.

Alberta's lofty mountains are unsurpassed for scenic beauty, her climate is attractive and healthful. She has a just reputation as one of the world's finest playgrounds. The Rocky mountains which form the western boundary, are unexcelled in the world for mountain scenery. Here are more than 7,000 square miles of primitive country which comprise the three great national parks. Jasper Park is widely and deservedly famed for the sublime grandeur of its snow-capped peaks and the breathtaking beauty of its lakes, waterfalls and mountain streams; its fascinating pack-trail trips, opportunities for wild life photographs, and its unparalleled fishing in mountain lakes and streams. Within Banff National Park are Banff and Lake Louise, everywhere acknowledged to be two of the most beautiful spots in the world. Accommodation ranges from tents and motor camps to the palatial Banff Springs Hotel.

In Buffalo National Park, a herd of wood buffalos, believed the last of their species, still roam wild.

North from Manitoba and Alberta lies the great Northwest Territory, rich in uranium ore, in radium and gold, and great mineral wealth as yet largely undeveloped.

Canada's most westerly province is British Columbia. Her geographical position, her enormous wealth of forest, fisheries and wild life, magnificent mountain ranges, majestic rivers and placid lakes, deep, narrow fertile valleys, broad plateaus and admirable climate, give her a unique position among the provinces. In British Columbia the visitor absorbs the romance and colour of Cariboo Road and Kicking Horse Trail, bizarre Indian villages with grotesque totem poles, tall firs and great cedars, tumbling waterfalls and wide-flung vistas of lake and mountain. The sheltered " Inland Passage " cruises lead past the myriad rocky inlets of the British Columbia to the fabulous Yukon Territory.

Vancouver, the country's third city, is Canada's principal western gateway. It is situated on the rugged Pacific coast, on a natural land-locked harbour against a background of forest-clad mountains. No city in the world has more outstanding natural attractions.

Canada offers the visitor travel attractions of a variety and quality unequalled in the world. Full information about Canada's attractions is available from the Canadian Government Travel Bureau in Ottawa, or from the tourist information bureau in each province.

THE PEOPLES OF CANADA

By JACK GOLDING

Special Correspondent, Winnipeg Free Press.

THE two basic stocks of the Canadian peoples are French and English. The French is the older, historically, and exceeds in numbers any one of the racial elements from the British Isles.

Table No. 1 shows the great diversity of people who make up the Canadian nation. The wide difference in political, social and economic background of these peoples gives rise to many problems but also lends lustre and diversity to the national life of the country.

At the time of Confederation the dominating racial influence in Canada from the British Isles was Irish. The Scots and the Irish, at this time, outnumbered the English by almost two to one. At the turn of the century, however, the English element dominated the scene. Many Irish left Canada to live in the United States and even to-day, while the numbers are not large, there is a constant flow of young Canadians across the border to the south. The attraction of big wages and highly paid professional careers is the chief inducement.

The largest single element among the Canadian peoples to-day is of French extraction, mainly due to decreasing emigration from the British Isles and the repatriation of many Canadians of French extraction from the United States.

In the last fifty years the proportion of European races has increased from 8·5 per cent to 17·8 per cent and is continuing to increase with larger numbers of farm and timber workers coming from North-West Europe in particular. In the years between 1901 and 1911 specific origins increased in Canada, namely, Scandinavians, Belgians, Jews, Italians, Poles and Finns. During the second decade of this century there were three of the heaviest immigration years in Canada's history. European stocks increased 32 per cent. In the third and fourth decades, European stocks jumped by 63 per cent—practically one million people. The birth rate among these immigrants rose and between 1921 and 1931 European stocks increased four and a half times more than the English.

But before the Canadian Citizenship Act of 1946, Canadian nationality was declared by the Immigration Act. Table No. 2 gives the picture that at the census of 1941, less than one per cent of the total Canadian-born and other British-born population lost their Canadian citizenship through marriage or renunciation. More than 80 per cent of the U.S.-born people in Canada, about 2 per cent of the population, became Canadians along with nearly 75 per cent of the Continental European born. Of those born in Asiatic countries, almost 75 per cent remains aliens. When the whole picture is examined, some 2·4 per cent are aliens.

Religions

During the seventy year period ending in 1941, at which time Canada's last official census was taken, it was found that about 40 per cent of the Dominion's people have espoused the Roman Catholic faith. The actual percentage was 43·3 and that included Greek Orthodox Catholics.

In 1871 Methodists formed some 15 per cent of the population but fell off to 13 per cent. in 1921. Presbyterians increased, due to a big influx from Scotland. When the United Church was organised in 1925, Congregationalists and Presbyterians suffered losses in their ranks. Nearly all Methodists, most of the Congregationalists and many Presbyterians joined forces when the United Church was organised.

Leading religious denominations among the numerically larger European elements in Canada are: German origin, 32 per cent Lutheran, 25 per cent Roman Catholic and 14 per cent United Church; Ukranian origin, 62 per cent Roman Catholic, 29 per cent Greek Orthodox; Scandanavian origin, 60 per cent Lutheran, 17 per cent United Church and about seven per cent Anglican; Netherlanders, 30 per cent Mennonite, 28 per cent United Church, 11 per cent Anglican and seven per cent Baptist. About four fifths of the people of Polish descent are Roman Catholic and roughly 90 per cent of those of Italian origin are the same.

About 13 per cent of the Chinese in Canada stated they were members of the United Church and seven per cent claimed allegiance to the Presbyterian Church. Less than one-fifth of the Japanese element in western Canada said they belonged to the United Church. Table No. 3 gives a percentage distribution of Canada's population in a variety of religious denominations.

Official Languages

Canada has two official languages, French and English, though there are several groups of mother tongues spoken. Among these are English, Chinese, Japanese, Finnish, Gaelic, the Germanic group, the Latin and Greek group, Magyar, the Scandinavian group, the Slav group, Syrian and Arabic, Yiddish and others. About 1,600,000 people were unable to speak English or French as a mother tongue at the time of the last census. The Province of Ontario has the largest number of people speaking foreign languages as mother tongues and the Province of Saskatchewan has the highest percentage. Table No. 4 gives a profile of the population speaking one, both or neither of Canada's official languages.

Aboriginal Races

Though there is a popular belief that the Indians of Canada are gradually dying out as a race, statistics do not support the thought.

The Indian Affairs Branch of The Department of Mines and Resources reckon the total number of Indians in Canada to be in excess of 125,000. It is a fact that the numbers of Indians dwindled with the coming of European elements but there is a lack of accurate information concerning that period so it is impossible to tell with definiteness. The trend during the twentieth century, however, has been steadily upward.

These Indians are under Federal control though some have been enfranchised and have acquired full rights of citizenship. They are spread across the country and live mostly on reservations under Crown protection. They have adequate land reserves, are made cash grants, assisted in agriculture and stock raising, trapping and hunting. Their children are educated. In 1945 the total area of Indian reserves in Canada was almost five and a half million acres most of which lies in Alberta, Ontario and Saskatchewan. Of this vast total only 187,457 acres are under cultivation.

In 1946 the Federal Government set up a Special Joint Committee to review the Indian Act so that it may be redesigned in keeping with the problems facing these aboriginal peoples in Canada to-day.

The Eskimos of Canada, who number slightly over seven thousand, live north of the tree line mostly on the northern fringe of the Arctic Archipelago and in Hudson Bay.

They are coast dwellers, fundamentally, and live by the mammals of the sea. There are small groups, however, living inland in the Keewatin District and the caribou provide them with food and clothing.

The administration of these frontier aboriginals rests on the Lands, Parks and Forests Branch of the Department of Mines and Resources. This department conserves the natural resources whereby these peoples exist and enforces them by patrols of the Royal Canadian Mounted Police, by radio communication, by the annual Canadian Eastern Arctic Patrol by steamship and by auxiliary motor vessels. Their medical care and hospitalisation is the responsibility of the Department of National Health and Welfare.

In the eastern, central and western Arctic are permanent stations, usually with a medical officer in each, for the convenience of the Eskimos and as a means of keeping in touch with them.

Immigration

During the year which ended March 31, 1947, almost 67,000 immigrants entered Canada or an increase of 115 per cent over 1945-46. Of these 67,000, about 48,000 were English, Scottish, Irish, Welsh; 11,500 came from the United States and the balance from other countries, mostly European.

It is interesting to note that the number of Canadians returning home from the U.S. numbered 6,315 compared with a total of 2,895 in 1945-46.

TABLE I

RACIAL ORIGINS OF THE POPULATION, CENSUS YEARS 1871-1941, WITH PERCENTAGE DISTRIBUTION FOR 1941

Racial Origin	1871[1]	1881	1901	1911	1921	1931	1941	
	No.	No.	No.	No.	No.	No.	No.	p.c.
British Isles Races	2,110,502	2,548,514	3,063,195	3,999,081	4,868,738	5,381,071	5,715,904	49·68
English	706,369	881,301	1,260,899	1,871,268	2,545,358	2,741,419	2,968,402	25·80
Irish	846,414	957,403	988,721	1,074,738	1,107,803	1,230,808	1,267,702	11·02
Scottish	549,946	699,863	800,154	1,027,015	1,173,625	1,346,350	1,403,974	12·20
Other	7,773	9,947	13,421	26,060	41,952	62,494	75,826	0·66
Other European Races	1,322,813	1,598,386	2,107,327	3,006,502	3,699,846	4,753,242	5,526,964	48·03
French	1,082,940	1,298,929	1,649,371	2,061,719	2,452,743	2,927,990	3,483,038	30·27
Austrian	—	—	10,947[2]	44,036	107,671	48,639	37,715	0·33
Belgian	—	—	2,994	9,664	20,234	27,585	29,711	0·26
Bulgarian	—	—	—	—	1,765	3,160	3,260	0·03
Czech and Slovak	—	—	—	—	8,840	30,401	42,912	0·37
Danish	[3]	[3]	[3]	[3]	21,124	34,118	37,439	0·33
Finnish	—	—	2,502	15,500	21,494	43,885	41,683	0·36
German	202,991	254,319	310,501	403,417	294,635	473,544	464,682	4·04
Greek	39	—	291	3,614	5,740	9,444	11,692	0·10
Hungarian	—	—	1,549[4]	11,648[4]	13,181	40,582	54,598	0·47
Icelandic	[3]	[3]	[3]	[3]	15,876	19,382	21,050	0·18
Italian	1,035	1,849	10,834	45,963	66,769	98,173	112,625	0·98
Jewish	125	667	16,131	76,199	126,196	156,726	170,241	1·48
Lithuanian	—	—	—	—	1,970	5,876	7,789	0·07
Netherlander	29,662	30,412	33,845	55,961	117,505	148,962	212,863	1·85
Norwegian	[3]	[3]	[3]	[3]	68,856	93,243	100,718	0·88
Polish	—	—	6,285	33,652	53,403	145,503	167,485	1·45
Roumanian	—	—	354[5]	5,883[5]	13,470	29,056	24,689	0·21
Russian	607[6]	1,227[6]	19,825	44,376	100,064	88,148	83,708	0·73
Scandinavian	1,623	5,223	31,042	112,682	[7]	[7]	[7]	—
Swedish	[3]	[3]	[3]	[3]	61,503	81,306	85,396	0·74
Ukrainian	—	—	5,682	75,432	106,721	225,113	305,929[8]	2·66
Yugoslavic	—	—	—	—	3,906	16,174	21,214	0·18
Other	3,791	5,760	5,174	6,756	16,180	6,232	6,527	0·06
Asiatic Races	4	4,383	23,731	43,213	65,914	84,548	74,064	0·64
Chinese	—	4,383	17,312	27,831	39,587	46,519	34,627	0·30
Japanese	—	—	4,738	9,067	15,868	23,342	23,149	0·20
Other	4	—	1,681	6,315	10,459	14,687	16,288	0·14
Indian and Eskimo	23,037	108,547	127,941	105,611	113,724	128,890	125,521	1·09
Negro	21,496	21,394	17,437	16,994	18,291	19,456	22,174	0·19
Other	348	2,780	145	18,310	187	681	36,753[9]	0·32
Not stated	7,561	40,806	31,539	16,932	21,249	8,898	5,275	0·05
TOTALS	3,485,761	4,324,810	5,371,315	7,206,643	8,787,949	10,376,786	11,506,655	100·00

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[1] Includes the four original provinces of Canada only.
[2] Includes Bohemian, Bukovinian and Slavic.
[3] Included under Scandinavian.
[4] Includes Lithuanian and Moravian.
[5] Includes Bulgarian.
[6] Includes Finnish and Polish.
[7] Since 1921 Scandinavian has been divided into Danish, Icelandic, Norwegian and Swedish.
[8] Includes Bukovinian, Galician and Ruthenian.
[9] Includes 35,416 half-breeds.

TABLE II

CITIZENSHIP OF THE TOTAL POPULATION, BY NATIVITY, 1941

Birthplace	*Canadian Nationals*	*Aliens*	*Not Stated*	*Total*
Canada	9,475,252	12,521	35	9,487,808
British Empire (other than Canada)	979,680	2,566	8	1,003,769[1]
United States	250,929	61,427	117	312,473
Continental Europe ..	488,571	164,838	296	653,705
Asia	12,105	32,332	6	44,443
Other	2,993	519	Nil	3,512
Not Stated	780	137	28	945
TOTALS ..	11,210,310	274,340	490	11,506,655[1]

[1] Includes 21,515 British-born persons who have not acquired Canadian domicile.

The key development in Canada's immigration policy since the end of the last war has been the admission of the first displaced persons from the refugee camps of Europe. Special Orders in Council authorised the admission of groups numbering 20,000, the first of whom reached the Dominion in 1948. Many others will be following as Canadian immigration teams are operating throughout Europe. In the summer of 1948 two additional liners were put on the immigrant run from Europe direct to Canada. In general immigration policy there was also a broadening of the categories under which relatives of Canadians could secure admission to the country, whether they happened to be displaced people or not.

In 1947 the Government of Ontario commenced a plan whereby several thousands of people from the British Isles were flown to Ontario at their own expense. The Federal Government took over the plan in 1948 and thousands of new Canadians were being flown throughout the summer of 1948. The plan is expected to continue. All this, of course, in addition to the normal flow of people who have chosen to live in the Dominion aside from any sponsored scheme.

While Canada has twelve and a half million people scattered over an area forty eight times larger than the

TABLE III

RELIGIOUS DENOMINATIONS OF THE POPULATION, CENSUS YEARS 1871-1941, WITH PERCENTAGE DISTRIBUTION FOR 1941

Religion	1871	1881	1891	1901	1911	1921	1931	1941	
	No.	No.	No.	No.	No.	No.	No.	No.	p.c.
Adventist	6,179	7,211	6,354	8,058	10,406	14,179	16,026	18,449	0·16
Anglican	501,269	574,818	646,059	681,494	1,043,017	1,407,780	1,635,615	1,751,188	15·22
Baptist	243,714	296,525	303,839	318,005	382,720	421,730	443,341	483,592	4·20
Brethren	2,305	8,831	11,637	8,014	9,278	11,580	13,472	13,767	0·12
Buddhist	—	—	—	10,407	10,012	11,281	15,784	15,635	0·14
Christian	15,153	—	—	7,484	17,421	17,142	11,527	8,515	0·07
Christian Science ..	—	—	—	2,619	5,073	13,826	18,436	20,222	0·18
Church of Christ, Disciples	—	20,193	12,763	17,164	14,554	13,107	15,811	21,223	0·18
Confucian	—	—	—	5,115	14,562	27,114	24,087	22,233	0·19
Congregationalist ..	21,829	26,900	28,157	28,293	34,054	30,730	694[1]	[2]	—
Doukhobor	—	—	—	8,775	10,493	12,648	14,913	16,844	0·15
Evangelical Church ..	4,701	—	—	10,193	10,595	13,905	22,213	37,002	0·32
Free Methodist Church of Canada[3]	—	—	—	—	—	—	7,730	8,788	0·07
Friends	7,353	6,553	4,650	4,100	4,027	3,149	2,424	1,964	0·02
Gospel People	—	—	—	—	135	2,449	6,355	7,005	0·06
Greek Orthodox[4] ..	18	—	—	15,630	88,507	169,832	102,389	139,629	1·21
International Bible Students	—	—	—	99	925	6,678	13,552	6,994	0·06
Jewish	1,115	2,393	6,414	16,401	74,564	125,197	155,614	168,367	1·46
Lutheran	37,935	46,350	63,982	92,524	229,864	286,458	394,194	401,153	3·49
Mennonite (incl. Hutterite)[5]	—	—	—	31,797	44,625	58,797	88,736	111,380	0·97
Methodist	578,161	742,981	847,765	916,886	1,079,993	1,159,246	[2]	[2]	—
Mormon	534	—	—	6,891	15,971	19,622	22,005	25,284	0·22
No religion	5,146	2,634	[6]	4,810	26,027	21,739	21,071	19,126	0·17
Pagan	1,886	4,478	[6]	15,107	11,840	6,778	5,008	2,908	0·02
Pentecostal	—	—	—	—	513	7,003	26,301	57,646	0·50
Plymouth Brethren ..	—	—	—	3,040	3,438	6,482	6,983	6,447	0·06
Presbyterian	574,577	676,165	755,326	842,531	1,116,071	1,409,406	870,728[1]	829,147[1]	7·21
Protestant, *n.e.s.*	10,146	6,519	12,253	11,612	30,265	30,753	23,296	10,756	0·09
Roman Catholic	1,532,471	1,791,982	1,992,017	2,229,600	2,833,041	3,389,626	4,285,388[7]	4,986,552[7]	43·34
Salvation Army	—	—	13,949	10,308	18,834	24,733	30,716	33,548	0·29
Unitarian	2,275	2,126	1,777	1,934	3,224	4,926	4,445	5,578	0·05
United Church	—	—	—	—	—	8,728	2,017,375	2,204,875	19·16
Other	15,637	21,382	46,030	19,202	30,104	32,066	44,515	53,679	0·47
Not stated	126,853[8]	86,769	80,267	43,222	32,490	19,259	16,042	17,159	0·15
TOTALS ..	3,689,257	4,324,810	4,833,239	5,371,315	7,206,643	8,787,949	10,376,786	11,506,655	100·00

[1] The figures for 1931 and 1941 entered opposite " Congregationalist " and " Presbyterian " represent the number not included in the " United Church."

[2] Included in " United Church."

[3] Reported as Methodists before 1931.

[4] Greek Orthodox and Greek Catholic combined under the term " Greek Church " in 1921. In the Censuses of 1931 and 1941, Greek Catholics are included with Roman Catholics.

[5] Mennonites were included with Baptists in 1871 and 1881; in 1891 they were included with " other denominations."

[6] Included with " other."

[7] Includes 186,654 Greek Catholics in 1931 and 185,657 in 1941.

[8] Includes 109,475 population in Manitoba, British Columbia and the Northwest Territories who were largely Indian and hence likely pagan.

United Kingdom, while she is the largest country in the Americas, she is not capable of supporting as large a population as her size might indicate.

Settlement in some timber and mining areas must be limited for the land is conducive only to one or two main operations. To the north the climate is severe in winter. The basic requisites for the development of large communities do not exist in many places.

Along the St. Lawrence Valley, in the Maritimes, throughout the Prairies and on both sides of the Rockies, are belts of land ideal for home making and for the extension of community life.

Key Population Factors

The power of industry and politics lies in Ontario and Quebec provinces for there are the main elements of English and French speaking Canadians. There is the concentration of manufacturing industry, the political capitals, the core of transportation facilities. In an economic and political sense, Toronto and Montreal usually set the stage for any big developments in Canada and the topography of the country would indicate that such will remain the case for years to come.

TABLE IV

POPULATION SPEAKING ONE, BOTH OR NEITHER OF THE OFFICIAL LANGUAGES OF CANADA, BY RACIAL ORIGIN, 1941

NOTE.—Children under 5 years of age were classed as speaking the language of the home.

Racial Origin	*Language Spoken*				*Total Population*
	English	*French*	*English and French*	*Neither English nor French*	
	No.	No.	No.	No.	No.
British Isles Races	5,479,862	18,357	216,385	1,300	5,715,904
English	2,854,790	7,011	105,982	619	2,968,402
Irish	1,194,746	6,411	66,246	299	1,267,702
Scottish	1,356,363	4,906	42,346	359	1,403,974
Other	73,963	29	1,811	23	75,826
Other European	2,069,029	2,158,898	1,240,571	58,466	5,526,964
French	181,778	2,147,182	1,152,713	1,365	3,483,038
Austrian, *n.e.s.*	36,023	53	985	654	37,715
Belgian	16,833	1,861	10,870	147	29,711
Czech and Slovak	39,625	42	1,146	2,099	42,912
Finnish	39,112	81	416	2,074	41,683
German	451,207	1,257	7,712	4,506	464,682
Hungarian	52,016	40	944	1,598	54,598
Italian	82,825	6,364	21,240	2,196	112,625
Jewish	145,215	225	22,519	2,282	170,241
Netherlands	203,961	99	2,634	6,169	212,863
Polish	156,208	411	4,734	6,132	167,485
Roumanian	22,761	93	1,239	596	24,689
Russian	76,303	140	1,945	5,320	83,708
Scandinavian	240,482	295	3,011	815	244,603
Ukrainian[1]	280,210	189	4,157	21,373	305,929
Other	44,470	566	4,306	1,140	50,482
Asiatic Races	57,154	891	4,504	11,515	74,064
Chinese	25,873	39	418	8,297	34,627
Japanese	20,183	2	93	2,871	23,149
Other	11,098	850	3,993	347	16,288
Indian and Eskimo	80,326	1,746	3,176	40,273	125,521
Other	44,260	1,789	9,198	3,680	58,927
Not stated	4,855	65	175	180	5,275
TOTALS	7,735,486	2,181,746	1,474,009	115,414	11,506,655

[1] Includes also Bukovinian, Galician and Ruthenian.

NATURALISATION IN CANADA

PRIOR to Jan. 1, 1915, naturalisation in Canada was only local in effect and such certificates were granted under the Naturalisation Act, R.S.C., 1906, c. 77. Although the " Imperial " Naturalisation Act came into force on Jan. 1, 1915, the " local " Naturalisation Act remained in effect until Dec. 31, 1917.

The " Imperial " Naturalisation Act which came into force on Jan. 1, 1915, was known under the title of the Naturalisation Act, 1914, until July 7, 1919, when it was repealed and the Naturalisation Act, 1919, came into force. On July 1, 1920, the Naturalisation Act, 1919, was repealed, and the Naturalisation Act, 1914, was revived and amended under the title of the Naturalisation Acts, 1914 and 1920. By an amendment passed by Parliament in 1923, the restriction was removed by which persons of enemy alien birth were ineligible to receive certificates of naturalisation for a period of ten years after the termination of the War. All these Acts were consolidated in R.S.C., 1927, c. 138. Under this consolidation, any alien could apply for naturalisation, but according to Section 4, Part II of the Act, the granting of the certificates of naturalisation to the applicant was left entirely to the discretion of the Minister who could, without assigning any reason, give or withhold the certificates as he thought most conducive to the public good.

As and from Jan. 15, 1932, female British subjects, marrying aliens, retained British nationality unless they, by marriage, acquired their husbands' nationalities. The wives of aliens no longer became British subjects automatically through their husbands' naturalisation; but were required to apply for a certificate to the Secretary of State.

By an Order in Council under the War Measures Act, R.S.C., 1927, c. 206, dated July 9, 1942 (P.C. 5842) as amended by Order in Council dated Sept. 23, 1942 (P.C. 8499), effective Jan. 1, 1943, all aliens who were required to apply for naturalisation by filing their applications through the Courts were required first to file declarations of intention. They were not qualified to file applications for naturalisation under Section 4 of the Naturalisation Act until one year after the date of filing the declarations of intention.

By the terms of Para. 1 of the Regulations laid down in Order in Council P.C. 5842 of July 9, 1942, as amended by P.C. 4309 of June 5, 1944, the Secretary of State was authorised to grant a certificate of naturalisation to any alien serving outside Canada with the Naval, Military or Air Forces of Canada, and to any alien who had enlisted for general service with the Naval, Military or Air Forces of Canada, and who had served on Active Service in any of the said Forces for a period of not less than eighteen months, and was still serving on Active Service in any of the said Forces, provided the applicant had satisfied the Secretary of State, by the filing of such documents and evidence as may have been prescribed by the Secretary of State and the Minister of National Defence that he was a fit and proper person to be naturalised in Canada as a British subject. No fee was payable on such certificates of naturalisation.

The Table below shows the number of naturalisation certificates issued to single persons or heads of families under these Acts during the calendar years 1945 and 1946. The total numbers of persons naturalised during the same years, including (except as stated above) the wives and minor children of those to whom naturalisation certificates were issued, are shown in the following Table.

NATURALISATION CERTIFICATES ISSUED IN CANADA, BY PRINCIPAL NATIONALITIES, 1945-46

Nationality	1945	1946	*Nationality*	1945	1946
Albanian	2	4	Lithuanian	97	167
Argentinian	Nil	1	Luxemburger	1	5
Austrian	363	826	Mexican	Nil	2
Austro-Hungarian	Nil	Nil	Montenegrin	1	Nil
Belgian	106	137	Netherlander	160	245
Brazilian	1	1	Norwegian	265	423
Bulgarian	16	25	Palestinian	7	4
Chinese	6	23	Persian	Nil	Nil
Czechoslovak	593	752	Polish	1,642	2,608
Danish	241	326	Roumanian	383	602
Danziger	3	6	Russian	598	1,029
Egyptian	Nil	1	Spanish	8	4
Estonian	4	17	Swedish	193	379
Finnish	308	709	Swiss	95	167
French	51	115	Syrian	17	33
German	457	1,012	Turkish[1]	11	18
Greek	56	92	United States	789	1,226
Hungarian	359	661	Yugo-Slav (Serb-Croat-Slovene)	221	319
Icelandic	6	30	All others	74	96
Italian	411	745			
Japanese	Nil	2			
Latvian	4	20	TOTALS	7,549	12,832

[1] Includes also Syrian, Armenian, Greek, Bulgarian, Palestinian and Mesopotamian Turks.

PERSONS NATURALISED IN CANADA, BY PRINCIPAL NATIONALITIES, 1945-46

Nationality	1945	1946	*Nationality*	1945	1946
Albanian	2	4	Lithuanian	107	187
Argentinian	Nil	1	Luxemburger	1	6
Austrian	477	1,025	Mexican	Nil	2
Austro-Hungarian	Nil	Nil	Montenegrin	1	Nil
Belgian	119	159	Netherlander	174	274
Brazilian	1	2	Norwegian	296	494
Bulgarian	16	28	Palestinian	9	5
Chinese	8	34	Persian	Nil	Nil
Czechoslovak	708	874	Polish	1,842	2,903
Danish	261	347	Roumanian	445	680
Danziger	3	7	Russian	819	1,315
Egyptian	Nil	2	Spanish	8	4
Estonian	4	17	Swedish	215	447
Finnish	331	746	Swiss	103	171
French	62	136	Syrian	21	40
German	509	1,083	Turkish[1]	13	22
Greek	62	103	United States	1,037	1,550
Hungarian	438	757	Yugo-Slav (Serb-Croat-Slovene)	252	344
Icelandic	8	37	All others	98	118
Italian	438	800			
Japanese	Nil	2			
Latvian	4	21	TOTALS	8,892	14,747

[1] Includes also Syrian, Armenian, Greek, Bulgarian, Palestinian and Mesopotamian Turks.

Persons naturalised under the Naturalisation Act are entitled to all the political and other rights, powers and privileges, and are subject to all the obligations, duties and liabilities of a natural-born British subject, and from the date of naturalisation have the same status as a natural-born British subject.

The Table below gives an analysis of the non-British and non-French naturalised and alien population of Canada for the two censuses, 1931 and 1941.

NATURALISED AND ALIEN POPULATION BY RACIAL ORIGIN, 1931 AND 1941

Racial Origin	1931		1941	
	Naturalised	*Alien*	*Naturalised*	*Alien*
	No.	*No.*	*No.*	*No.*
Austrian	11,420	11,307	10,824	3,890
Belgian	8,050	8,290	9,925	3,853
Czech and Slovak ..	5,175	16,841	15,037	10,935
Finnish	9,712	21,918	13,076	11,674
German	79,249	65,416	83,683	24,949
Hungarian ..	6,361	23,001	20,834	10,453
Italian	28,340	17,344	34,207	7,735
Jewish	57,278	27,373	66,105	11,400
Netherlander ..	14,499	15,381	24,192	7,611
Polish	28,773	48,744	48,815	20,848
Roumanian ..	6,452	7,944	6,910	2,418
Russian	17,937	22,790	20,897	10,453
Scandinavian ..	76,788	51,597	79,998	22,895
Ukrainian ..	54,914	43,015	78,061	28,069
Other European ..	9,143	18,220	19,098	9,248
Chinese	2,173	39,038	2,055	25,878
Japanese	4,353	7,754	3,159	5,978
Other Asiatics ..	4,347	1,601	4,549	754
TOTALS ..	424,964	447,574	541,425	219,041

CANADIAN CITIZENSHIP

On Jan. 1, 1947, there came into force the Canadian Citizenship Act. By this legislation all previous Naturalisation Acts in force in Canada were repealed; this included the Candian Nationals Act, c. 21, R.S.C. 1927. The purpose of the Act is to give a clear and simple definition of Canadian citizenship and to provide an underlying community of status for all the people of Canada that will help to bind them together as Canadians. Heretofore, the only definition of Canadian citizenship was to be found in the Immigration Act, and that was a limited one, for it defined citizenship only for purposes of immigration. Now, for the first time in Canada's history, there is a clear definition of Canadian citizenship in the sense of being nationals of Canada.

Natural-born Canadian Citizens

The Canadian Citizenship Act, 1947, defines clearly the status of natural-born Canadians before and after the coming into force of the Act. It covers those persons born in, and outside Canada. Provision is also made for the citizenship of a Canadian-born person born abroad, out of wedlock. Such a person is a Canadian citizen if his mother was born in Canada, or on a Canadian ship, and had not become an alien. Heretofore, a person in that category had no claim to Canadian citizenship. A person born abroad of a Canadian parent before the commencement of the Canadian Citizenship Act, 1947, is not deemed to have the status of a Canadian citizen, unless he has been lawfully admitted to Canada for permanent residence, or is a minor. A person born abroad of a Canadian parent after the new Act came into force is a Canadian citizen, but there is a proviso that his birth must be registered at a Canadian consulate, or with the Secretary of State of Canada, within two years after its occurrence, or within such extended period as may be authorised in special cases by the Minister, if his parents wish him to retain Canadian citizenship. In addition, a Canadian born outside Canada, either before or after the commencement of this Act, ceases to be a Canadian citizen unless within one year after he reaches the age of 21, he files a declaration of retention of Canadian citizenship, and, if he is also a citizen of a country other than Canada (dual nationality), he divests himself of such nationality by declaration of alienage, or otherwise. In special cases, the Minister may extend the time during which any such person may assert his Canadian citizenship and divest himself of the other nationality or citizenship. One of the important features of the new Act, with respect to which the procedure is set out in the Regulations, is that which permits a natural-born Canadian citizen to apply for a certificate of Canadian citizenship. Many Canadians travel abroad these days, and many of them reside abroad for a number of years, They, in particular, may wish to have certificates identifying them as Canadian citizens. But any Canadian, whether he intends to travel or stay at home, may apply to the Secretary of State of Canada for a certificate of Canadian citizenship and obtain one upon the payment of a fee of $1. This is something quite new, and a distinct departure from the former procedure. Under previous Acts, there was no provision for the issue of certificates to Canadian citizens or British subjects, as their birth certificates were deemed to be sufficient evidence of their status.

British Subjects and Canadian Citizens

British subjects, as distinct from Canadian citizens, have their status defined under the new Act. It should be explained that, under previous Acts, persons born or naturalised within the British Commonwealth of Nations were officially designated as British subjects. Officially, a Canadian could not describe himself as a Canadian citizen; the term was " British subject." This was one of the principal reasons why the Act was passed, viz., to permit a Canadian to call himself a *Canadian*. The authority for this procedure is found in Section 3 of the new Act, which reads:

> " Section 3. Where a person is required to state or declare his national status, any person who is a Canadian citizen under this Act shall state or declare himself to be a Canadian citizen and his statement or declaration to that effect shall be a good and sufficient compliance with such requirement."

Although the designation, British subject, will be dropped in future, insofar as it applies to Canadians, this does not mean that a Canadian loses the status of a British subject. Section 26 of the new Act reads that a Canadian citizen is a British subject, and Section 28 reads that a person who has acquired the status of a British subject by birth or naturalisation under the laws of any country of the British Commonwealth, other than Canada, to which he was subject at the time of his birth or naturalisation, shall be recognized in Canada as a British subject.

It should be emphasised that the rights of non-Canadian British subjects have not been changed or infringed upon by the new Act. They will continue to have the right to vote, to obtain old age pensions, and the right of permanent entry after five years' residence in Canada. But they are not Canadian citizens until they have established a residence of five years in Canada. Those who have that residence at the commencement of the Act are Canadian citizens, and those who attain it after that date must apply for certificates of citizenship before being granted the status of Canadian citizens.

However, any British subject, whether or not he is a Canadian citizen, may apply for a certificate of citizenship. The British subject who is not a Canadian citizen may apply for a certificate direct to the Secretary of State of Canada, or, alternatively, he may apply to the court of the district in which he resides. If the Secretary of State is in any doubt as to the qualifications of the person who applies direct to him, he may refer the case to the court for consideration.

Canadian Citizens Other than Natural-born

Under Section 9, of the Act, naturalised persons, and British subjects, who had Canadian domicile before the commencement of this Act, are Canadian citizens and may obtain a Canadian Citizenship Certificate upon payment of $1. Section 9 also defines the status as Canadian citizens of women and children, other than natural-born, and the manner in which they would have acquired Canadian citizenship.

Status and Procedure of Non-Canadians to Canadian Citizenship

In Section 10 (1) of the Act will be found the provisions which apply to the granting of citizenship to a person who is not a Canadian citizen. Although the word " alien " is not used in the sub-section, nevertheless its principal purpose is to define the circumstances under which an alien may apply for and be granted a certificate of citizenship. The application is made to a court, and whereas the alien *must* apply to the court, the British subject has the option of applying to the court or direct to the Secretary of State. Furthermore, the alien must commence his application by filing a Declaration of Intention, which the British subject is not required to do.

The applicant for a certificate of citizenship may file his application at any time after his admission to Canada, and after he has attained the age of 18 years, in the form of a Declaration of Intention in the office of the clerk of the court of the district in which he resides. He must then wait not less than one year before filing with the court his application for a decision that he is qualified for citizenship. In any case, when he files his final application, he must satisfy the court that he has had a residence of one year in Canada immediately prior to the date of filing the application, and a further period of four years in Canada during the six years immediately preceding the date of the application, making a total residence of five years. In the case of an applicant who has served outside of Canada in the Armed Forces of Canada during time of war, or where the applicant is the wife of and resides in Canada with a Canadian citizen, a residence of only one year immediately preceding the date of the application is required.

In addition to the requirements of residence the applicant must satisfy the judge that he has been lawfully admitted to Canada for permanent residence; that he is of good character; that he has an adequate knowledge of English or French (knowledge of language is not necessary if he has resided continuously in Canada for more than 20 years—the 20 year clause is new); that he has an adequate knowledge of the responsibilities of Canadian citizenship, and that he intends, if his application is granted, either to reside permanently in Canada or to enter or continue in the public service of Canada or of a province thereof.

When the judge has given his decision, the papers and the decision are forwarded to the Secretary of State of Canada. He may grant the certificate of citizenship or, if he is in doubt whether the certificate should be granted, refer the application to the court for a rehearing. When a certificate is granted, it is forwarded to the clerk of the court, who then notifies the applicant to appear in court for the purpose of taking the oath of allegiance and declaration of renunciation of foreign allegiance, and receiving his certificate of citizenship.

Status of Married Women

One of the important changes in the new Act is the citizenship emancipation of married women. Hitherto, an alien woman marrying a British subject became a British subject. Contrariwise, the woman of British nationality who married an alien, and acquired his nationality upon marriage, ceased to be a British subject. In fact, prior to 1932, a woman of British nationality who married an alien lost British nationality regardless of whether or not she acquired her husband's nationality. Under the new law, all this is changed. A Canadian woman does not lose Canadian citizenship upon marriage to an alien, and an alien woman who marries a Canadian does not, by reason of the marriage, become a Canadian citizen. In the former case, if she has acquired her husband's nationality, the married woman may divest herself of Canadian citizenship by filing with the Secretary of State of Canada a declaration of alienage and she shall thereupon cease to be a Canadian citizen. In the latter case, an alien woman must apply to the court for a certificate of citizenship. The only concession is that a residence of only one year in Canada is required.

In the past, married women were classed with minors, lunatics, and idiots as persons under disability. They could not become naturalised or control their national status as independent persons, except in very special circumstances. These disabilities have been removed, and under the new Act married women have equal status with men.

Status of Minors, Foundlings, Posthumous Births, etc.

Under Section 19 (3) of the Act, a certificate of citizenship may be granted to a minor child of a person to whom a certificate of citizenship is, or has been, granted under the Act, on the application of that person if the person is the responsible parent of the child, if the child was born before the date of the grant of the certificate and has been lawfully admitted to Canada for permanent residence. Under Section 11(b), the Secretary of State, may, in his discretion, grant a certificate to a minor in any special case whether or not the conditions of the Act have been complied with. For the first time, a Canadian Act on nationality or citizenship defines the status of a deserted infant. Under previous Acts there was no mention of the status of a child left on somebody's doorstep. Under the new Act, it is provided that every foundling, who is or was first found as a deserted infant in Canada, shall, until the contrary is proved, be deemed to have been born in Canada. Another new provision in the Act, which did not appear in previous Acts, is the case of a child born after the death of his father. For purposes of definition of natural-born Canadian citizen, the child shall be deemed to have been born immediately before the death of the father. Under Section 11(a) of the Act, a certificate may be granted for the purpose of removing any doubts as to whether the person to whom it is granted is a Canadian citizen, and it is specifically provided that the granting of the certificate shall not be deemed to establish that the person to whom it is granted was not previously a Canadian citizen.

Citizenship of Persons Naturalised Locally Prior to 1914

Persons who were naturalised locally in Canada prior to the passing of the Naturalisation Act of 1914, were permitted, under the various Imperial Acts which were in force from 1914 to 1946, to exchange their local naturalisation for Imperial certificates. This provision has been carried forward in the Canadian Citizenship Act, so that these persons, and particularly their children who were naturalised with them but who have no certificates to identify them as citizens, may apply for and obtain certificates of Canadian citizenship upon payment of a fee of $1.

Protection of Status Prior to the Canadian Citizenship Act

Section 46 of the Act provides that notwithstanding the repeal of the Naturalisation Act and the Canadian Nationals Act, the Canadian Citizenship Act is not to be construed or interpreted as depriving any person who is a Canadian national, a British subject or an alien as defined in the said Acts, or in any other law in force in Canada, of the national status he possesses at the time of the coming into force of this Act.

Loss of Canadian Citizenship

A Canadian citizen who, when outside of Canada and not under a disability, by any voluntary and formal act, other than marriage, acquires the nationality or citizenship of a country, other than Canada, shall cease to be a Canadian citizen. This is the usual way in which Canadian citizenship is lost. There are other causes, such as service in the Armed Forces of a country when it is at war with Canada; a minor child who acquires a foreign citizenship with his responsible parent; or a woman who acquires her alien husband's nationality and files a declaration of alienage. The minor child who loses Canadian citizenship through his parent, may, within one year of attaining his twenty-first year, file a declaration of retention of Canadian citizenship, and he shall, thereupon, again become a Canadian citizen.

A Canadian citizen, other than natural-born or one who has served in the Armed Forces of Canada in time of war, ceases to be a Canadian citizen after a residence of at least six consecutive years outside Canada, except in specific cases wherein the principle of maintenance of some connection with Canada is proved. There is authority, however, to extend the period of residence outside Canada for more than six years, by registration with a consulate and the issue of a certificate of extension.

Revocation of Citizenship

The revocation procedure which obtained under the Naturalisation Act has been carried forward into the new Act. This provides for the establishment of a revocation Commission to inquire into and report upon the proposed revocation of certificates of citizenship. Revocation can take place only by Order of the Governor in Council, upon recommendation of the Secretary of State. Revocation proceedings may be instituted on the grounds of residence outside of Canada for not less than six years; trading with the enemy during time of war; false representation or fraud, or the concealment of material circumstances at the time of naturalisation; disaffection or disloyalty to His Majesty, whilst out of Canada, or, if in Canada, the naturalised citizen has been convicted of treason or sedition by a competent court.

Where a person ceases to be a Canadian citizen or a British subject under the circumstances outlined in the preceding paragraph, the citizenship of the spouse and minor children of that person shall not be affected unless, in the case of a wife, she became a British subject (legislation prior to this Act), by reason only of her marriage to the said person, or the said person is the responsible parent of a child. In such case it may be directed that the wife and children shall cease to be Canadian citizens or British subjects, as the case may be. The wife of a person who has ceased to be a Canadian citizen or a British subject may, within six months of the date of revocation of her husband's certificate, make a declaration renouncing her Canadian citizenship and thereupon any minor children of her husband and herself shall cease to be Canadian citizens or British subjects, as the case may be.

Where a person ceases to be a Canadian citizen or a British subject, he shall be regarded as having the nationality or citizenship which he had before he became a Canadian citizen or a British subject.

The Oath of Allegiance

In conformity with the new conception of Canadian citizenship as defined in the Act, the form of oath of allegiance has been changed. Under the Naturalisation Act it read as follows:

> " I (AB) swear by Almighty God that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law. So help me God."

Under the new Act, the oath has been altered to read:

> " I (AB) swear that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law, and that I will faithfully observe the laws of Canada and fulfil my duties as a Canadian citizen. So help me God."

Canadian Citizenship Ceremonies

One of the significant innovations in the new Act is the ceremonies attendant upon the presentation of certificates of citizenship at special sittings of the courts. Machinery has been set up by which the courts across the country will be given every assistance possible in the arrangement of ceremonies in connection with the presentation of certificates of citizenship.

It is planned, also, to provide the newcomer to Canada with special facilities for training and education in the fundamentals of citizenship and a manual on Canadian citizenship will be issued to the alien when he files his Declaration of Intention.

THE PROVINCES

ALBERTA

THE Province of Alberta was first visited by white men some 200 years ago when traders of the Northwest Company and Hudson's Bay Company established posts from which to carry on and expand the fur trade. In 1882 the region was designated one of the four districts of the Northwest Territories and named Alberta after Queen Victoria's fourth daughter. The Canadian Pacific Railway crossed the district in 1883 and during the next three decades many settlers arrived and new towns opened up. Subsequently in 1905 the district of Alberta and the adjoining district of Athabaska were combined to form the Province of Alberta and incorporated as an integral part of the Dominion of Canada.

Alberta has an estimated area of 255,285 square miles of which some 6,485 are water. It is 750 miles long and ranges in width from 180 to 400 miles. The altitude varies from less than 1,000 feet on the east to more than 5,000 feet on the west.

The present population of Alberta is slightly less than 825,000. Half of these are of British origin and principal races represented in the remainder include Canadians from French, German, Ukrainian, Norwegian, Polish, Swedish, Netherlands, Russian and at least 20 other racial stocks. Ability, energy, character and gracious manners receive full recognition regardless of racial origin.

Albertans have some qualities of which they may well be proud. The influence of education, the general use of the English language and identification of second generation immigrants completely with the life of the Province are contributing factors in successfully eradicating intolerance and race prejudice.

Government of the Province is vested in a lieutenant-governor and legislative assembly of 57 members. The assembly is elected for five years and represents the 49 electoral districts into which the Province is divided. The executive council consists of 10 members. Seat of the legislative assembly is Edmonton, a city of approximately 125,000 persons. Government offices are maintained in the cities of Calgary, Lethbridge, Medicine Hat, Red Deer and other centres. In the Dominion parliament Alberta is represented by six senators and 17 members.

There are six administrative categories in the Province. These; cities, towns, villages, municipal districts, local improvement districts and special areas; were inaugurated to ensure the most efficient handling of the people's affairs.

Alberta forms the third steppe of the Great Central Plain of North America and may be divided into three topographical regions: prairie, parkland and wooded.

The prairie region, situated in the southeast corner of the Province, contains unexcelled stretches of wheat land and stock range. The parkland region, occupying the central section, is a picturesque area ideally adapted for mixed farming. The wooded area in northern Alberta has a varied contour. For the most part densely-wooded rolling hills it contains tracts of true prairie in the Peace River country.

Generally speaking, the climate of Alberta is healthy and invigorating. The winters are not as severe as might be expected and warm summer days usually give way to cool nights.

The outstanding feature of Alberta weather is the chinook, a warm westerly wind that causes mild weather in mid-winter. Although a characteristic of the ranching areas it influences the weather in all parts of the Province.

Because of the balance of sunshine and rain received the Province is ideally suited for agriculture. In the agricultural area of close to 100,000,000 acres, 70 per cent is arable. Some 20,000,000 acres are cultivated and an additional 20,000,000 acres occupied but not cultivated. Irrigation projects in southern Alberta have made some 600,000 acres available for agriculture and this figure is increasing steadily.

There are about 90,000 farm homes in Alberta and the rural population numbers nearly half a million. Ranching, grain growing, mixed farming and dairying play the largest part in making agriculture Alberta's basic industry.

The petroleum industry has gained Alberta world-wide attention. Since 1886 oil has been recovered in one form or another at many points throughout the Province. The site of Turner Valley, discovered in 1914, has since been developed into the second largest oilfield in the British Empire. The extent to which Alberta's petroleum industry may grow seems unlimited. Many men, some with sound geological training, maintain that somewhere beneath Alberta lies an oil pool so vast as to make existing fields of the world fade to insignificance. The location of fields already in operation does much to substantiate such a belief.

At the present time more than 90 per cent of the oil produced in Canada comes from Alberta and the recently discovered Leduc-Woodbend field may raise even this high figure. With the search for oil never ending—with most of the major oil companies and a large number of independents engaged in exploration, drilling and production activities—the discovery of new fields in Alberta is ever-imminent.

Coal, too, is found in vast deposits in Alberta. According to recent surveys the estimated coal reserves proved and accessible for present-day mining total 46,000,000 tons. Most of Alberta's coal is bituminous and on the basis of present production the reserves are good for 4,000 years. This coal is available for fuel and manufacturing of the many by-products of coal.

In Alberta there is more natural gas than can be used and more is being found almost daily. Even before recent oil drilling operations discovered millions more cubic feet of natural gas it was estimated that there was sufficient in the known fields in the Province to last more than 100 years at the present rate of consumption. This natural gas has a high heat content and is available at the lowest cost on the North American continent. These factors alone make it an ideal fuel for both industrial and domestic use.

Water power is potentially plentiful in the Province. A federal government survey lists 34 sites capable of generating a maximum of 1,000,000 horsepower. Four of these sites have been developed and about 95,000 horsepower is in use.

Besides having more than enough fuel for domestic and industrial use, Alberta has plenty of raw material to be processed. Abundantly supplied with most of the non-metallic minerals, the Province has an increasing number of industries engaged in the production and refining of these, together with a large number of manufacturing firms which utilise the finished products.

High-grade salt is being produced in large quantities for domestic and commercial use at several points in the Province. Alberta salt is more and more frequently being used in road building to produce a high quality, erosion-free surface.

Since the turn of the century the varied and plentiful clay resources of the Province have supplied material for the development of an important pottery industry. Gypsum for the construction industry and rock-wool shale from which an excellent insulation is manufactured are both found in large quantities in Alberta. The bituminous sands of the McMurray area, aside from the 250 billion barrels they contain, yield raw material for such by-products as asphalt, glass, and roofing compounds.

There is sufficient wood and pulp in Alberta's 159,000 square miles of timberland to support lumber, paper and pulp industries of considerable extent. From the lakes of northern Alberta commercial fishermen take over a million dollars worth of fish each year. In the same region fur trappers carry on the traditions of the fur industry which originally brought settlement to the West. Also, in recent years the development of fur farming has reached a point where Alberta now holds second place among the provinces of Canada.

Alberta's position in relation to the mineral fields of the far North is of considerable importance. Conveniently located near all three sources of cheap power: gas, coal and water, it is expected that Edmonton will be the site of many plants for processing and distributing the wealth of Canada's great northland.

The Edmonton airport is the busiest in western Canada. It is on one of the direct routes to the Orient and is a stopping place for most of the round-the-world flights. The tonnage of air freight handled by this airport is unmatched by any other Canadian point. Gold from Yellowknife's famous mines and uranium from Port Radium on Great Bear Lake are flown through Edmonton. Millions of dollars worth of equipment and supplies is flown down North from Edmonton.

Recognising, perhaps, that Alberta would one day be among the important centres of population on the North American continent, Nature supplied the Province with numerous playgrounds. Situated in the Rocky Mountains are such world famous resorts as Jasper, Banff, Lake Louise and Waterton Lakes. Scattered throughout the Province are many picturesque lakes and rivers which provide ample opportunity for swimming, boating and fishing.

Temperate in climate, wealthy in resources, and peopled with friendly, freedom-loving individuals, Alberta, the last great West, is entering into industrial manhood. Working in close coöperation with the basic agriculture on which the Province first grew, new industries will provide employment and security for the ever increasing number of citizens. The future may not be as colourful as the fur trader-cattleman-Indian era of the past but no Albertan believes the Province will ever relinquish the position to which it has attained—the pacemaker of progress among Canada's provinces.

BRITISH COLUMBIA

Third largest and most westerly of Canada's nine provinces, British Columbia occupies on the mainland of the North American continent a huge quadrilateral, contained on the east by the Rocky Mountains, on the south by the International Boundary at the 49th parallel, on the north by the frontiers of Alaska, the Yukon and the Northwest Territories, and on the west, where it has an indented coastline of some 7,000 miles, by the Pacific Ocean. Outside this quadrangle, but forming an integral part of the province, is a great offshore archipelago of many hundreds of islands, of which Vancouver Island and the Queen Charlotte group are the chief. The province's total area of 366,255 square miles is approximately equal to the combined areas of Great Britain, France, Holland, Belgium and Denmark.

British Columbia's population, estimated at 1,100,000, is less than three to the square mile, the lowest density of any in Canada, but it leads all Canada in per capita production, purchasing power and wealth. The capital and seat of the Legislative Assembly is Victoria, on Vancouver Island. The commercial metropolis (pop. 400,000) is Vancouver, on the mainland. Other chief cities and towns are: Chilliwack, Cranbrook, Duncan, Fernie, Kamloops, Kelowna, Nanaimo, Nelson, New Westminster, North Vancouver, Port Alberni, Prince George, Prince Rupert, Revelstoke, Rossland, Trail, Vernon and the districts of Greater Vancouver.

The provincial government is administered by a lieutenant-governor (the Hon. Chas. A. Banks, C.M.G.) and a Legislative Assembly of 48 members. Head of the present Coalition Government is the Hon. Byron I. Johnson, M.B.E. The province is represented in the Dominion Senate by six members, and in the House of Commons by sixteen.

The dominating physical feature of the province is the three mighty mountain chains—the Rockies, the Columbia Mountain System, and the Coast Range—which trend across it in a northwesterly direction, and confer upon the country a scenic grandeur which has earned for it the description of "fifty Switzerlands rolled into one." The highest peaks are Mt. Robson (13,068 ft.) in the Rockies; Mt. Waddington (13,260 ft.) in the Coast Range, and Mt. Fairweather (15,300 ft.) on the border of Alaska. The two most important rivers are the Fraser and the Columbia, which rise in the Rocky Mountains. The former has its whole course within the province, but only the upper portion of the latter is in Canadian territory.

Jagged ranges, remote snow-clad peaks, rolling foothills, wide fertile valleys, park-like plateaus, great lakes, deep fiords, forest upon forest of giant trees—such is a composite picture of the British Columbian scene, suggestive perhaps rather of a playground than of great industrial activity. It is indeed a great sporting domain, with abundance of big game, lakes teeming with trout and rivers alive with salmon, and hundreds of thousands of tourists and sportsmen from all parts of the world pour into the country every year for a holiday vacation; but the scenic beauty is a background only; in the forefront is an exceedingly rich diversity of natural resources—timber, minerals, fisheries, agriculture and "white coal." It is upon these and their development that the economy of the province is based.

British Columbia extends over 11 degrees of latitude, and it exhibits extreme variations in precipitation, sunlight, altitude and temperature. In the coastal areas the winters are mild and the summers are cool, and the westerly region is classed as one of the four most favoured climatic zones in the world. Favourable conditions of climate and and soil have combined to produce immense growths of timber, and the forests of the province abound in magnificent stands of Douglas fir, Western Red cedar, Sitka spruce and hemlock, to name only the chief varieties. They constitute the largest reserves of softwoods in the British Commonwealth. Last year's cut reached a record total of 3,991,603,707 ft. and yielded a return of $220,000,000.

Scarcely less rich in potential wealth than the forests are the mountainous regions, and there is hardly a single district which does not contain minerals of some kind. Some sixty-nine minerals and rare earths have so far been discovered, but much of the province, from the point of view of its mineral resources, still remains to be explored. Only recently, after a five years' search, has the announcement been made by the Hon. R. C. MacDonald, Minister of Mines, of the discovery of radioactive ores. The mines of British Columbia produce 98 per cent of the lead and zinc, 66 per cent of the copper, and 20 per cent of the gold and silver mined in all Canada. The value of production in 1947 from all sources was $113,000,000.

The fisheries of the province contribute nearly one-half of Canada's harvest from sea and river. Salmon is the fish with which the name of British Columbia is most identified, but the waters of the province, esturial and ocean, yield a wide range, from clams to whales, from herrings to tuna, with the manufacture of fish-oil and fertiliser, and a share in the fur-seal fisheries of the Pribilof Islands, figuring in an industry which last year had a market value of $58,250,000. One of the most important catches is halibut, and from the centre of the fishery at Prince Rupert go express refrigerator cars three thousand miles across the continent to deliver it in New York.

British Columbia has over 26,000 farms, nearly 90 per cent of them individually owned. They range in size from five to several hundred acres, according to the type of farming carried on. Agriculturally, the province divides itself into zones. On the Lower Coast (which includes Vancouver Island and the Fraser Valley) dairying and the growing of small fruits and field crops are carried out. The Southern Interior, notably the Okanagan and Kootenay valleys, confines itself largely to fruit and vegetables. In the Central Interior there is a huge tract devoted to cattle-raising, while northward, in the Nechako and Bulkley valleys, mixed farming is the order of the day. Among specialised branches may be mentioned the growing of bulbs. British Columbia is the only province in Canada with a climate suitable for the production of tulip, daffodil, narcissus, iris and other autumn-planted bulbs.

An immense amount of land classification still remains to be done, but present estimates indicate that of the province's 234,000,000 acres about 5,000,000 can be brought under intensive and successful cultivation. As it is, not more than 25 per cent of this total is being cultivated. Agriculture is British Columbia's second largest basic industry, and production in 1947 made a total of over $125,000,000.

The " white coal " or water powers of the province have a potential of some 7,000,000 h.p., of which little more than 10 per cent has so far been developed. The use of electricity is general throughout all the urban districts, and is being rapidly extended to the rural areas by the Government-owned and operated Power Commission. Electrical appliances are used everywhere, and there are few homes without a telephone.

In spite of its small population British Columbia ranks third among the Canadian provinces in manufacturing. The leading industries are sawmilling, fish curing and packing, pulp and paper, meat packing, sheet-metal products, breweries, planing mills, castings and forgings, shipbuilding, distilleries, flour and feed mills, clothing, boots and shoes, paints and varnishes, and furniture and upholstery. During the war the B.C. yards produced 70 per cent of all the cargo ships built in Canada. One yard alone turned out over one hundred 10,000-ton freighters. Among the new industries established during the past two years are the manufacture of matches, synthetic pig iron and cast iron spun pipes, optical glass, floor tiles from sawdust, and the establishment of magnesium and chemical plants. All told, there are some 2,330 factories representing an investment of over $450,000,000 and employing a labour force of nearly 90,000.

British Columbia is served by two transcontinental railways—the Canadian Pacific and the Canadian National —and its publicly-owned Pacific Great Eastern Railway. With Vancouver as its chief air-port it has air-service connections with Britain, the United States and Australia. It has an excellent system of lake and river transport, and its 22,000 miles of highway serve the owners of over 100,000 motor cars.

The educational facilities embrace high schools, junior high, superior and elementary to the number of 1,200. There are two normal schools for the training of student teachers, and there is the University of British Columbia, which not only gives a liberal education and special instruction in the branches most closely identified with the basic industries of the province, but is also inaugurating faculties in law and medicine. The University has a sessional enrolment of some 9,000 students. In addition to the Government schools, where all education is free, there are a number of private establishments modelled on the English public school.

Intensely British in sentiment—70 per cent of its people come of British stock—British Columbia has an atmosphere all its own. Victoria, the capital, has been described as " a bit of old England set down on the shores of the Pacific," and is the Mecca of all Canadians. It is not surprising that, with its superb climate and its scenic beauty, the province should be, as it is, the fastest growing in Canada. In addition to these attractions it has a wide range of activities and opportunities, and offers perhaps a better arena for energy and enterprise than is to be found elsewhere on the North American continent.

MANITOBA

Manitoba—the Keystone Province—stretches from the heart of the continent to the sub-arctic. Its land surface is 219,723 square miles, its water area, 26,789 square miles. The population (1946 census) is 726,923.

Manitoba became a province on July 15, 1870, when her population was estimated to be 11,963, and her area only 13,928 square miles. Her first legislative body consisted of a lower house of 28 members, and an upper house of seven. Now, Manitoba has a one-house legislature of 55 members. In 1945, three additional members were elected to the 22nd Legislature to represent the armed forces. At Ottawa, Manitoba is represented by 17 members of the House of Commons and six Senators.

Manitoba has been famous for many years for her high protein wheat, and her high quality dairy and meat products. Her net agricultural income in 1947 totalled well over $188 millions—an average of more than $3,597 per farm. During the 10 years just ended, wheat production in the province averaged over 52 million bushels per year—over 20 bushels per acre for all farms. Average annual production of oats was nearly 50 million bushels in the same period, and of barley, nearly 46 million bushels.

Over $39 millions of meat products and nearly $23 millions of dairy products formed the basis in 1946 for two of the largest manufacturing industries of the province.

Recent developments adding to these well-established sources of agricultural and manufacturing income have been in production of sunflowers for edible oils, and in expansion of vegetable production in suitable areas. There has been a steady trend towards more diversified farming, assisted by the province-wide rural electrification programme of the Manitoba Power Commission.

This significant agricultural production occupies only some 5 per cent of Manitoba's land, for Manitoba is only partly a prairie province. About a quarter of Manitoba's land area is agricultural; the rest is rich in minerals, timber, fish, water-power and furs.

The fur trade has had an extremely important part to play in the history and economic development of Manitoba, for it was in search of fur that the first explorers came. Today, there are over 700 fur farms operating in the province, and Manitoba possesses the second largest fur market in Canada. Modern conservation measures have resulted in a large increase in fur-bearing animals in recent years. The world's largest muskrat ranch—a rehabilitation project with an area of approximately one million acres—is operated in Northern Manitoba by the government.

Mineral developments are very much to the fore in Manitoba at present. For over 15 years, Manitoba has been a leading producer of high-quality copper, zinc, gold, silver, cadmium and other metallic and non-metallic minerals. The Hudson Bay Mining and Smelting Co. mine at Flin Flon is one of the most important base metal mines in Canada. Moreover, in the past two years, the nickel-copper discoveries at Lynn Lake have brought considerable prominence to Manitoba, and give evidence of becoming important producers. With the removal of wartime restrictions, extensive gold deposits in the north are also being developed. Noteworthy lithium deposits are being investigated in Northern Manitoba.

The province is renowned for its tapestry building stone, more familiarly known as Tyndall stone. Its simple beauty and structural qualities have made it popular as a building material throughout Canada.

Manitoba has abundant water-power resources. When present alterations to existing plants are completed, her developed power will total over 600,000. Well over a million horsepower lies ready for developing within a reasonable transmission distance of most present centres of population. An additional six million or more remain to be developed. Power is distributed in rural Manitoba by the Manitoba Power Commission, which is now engaged in a 10-year programme to bring hydro-electric power to some 90 per cent of the province's farms. For Greater Winnipeg, power is competitively developed by the municipally owned City of Winnipeg Hydro Electric System and the privately owned Winnipeg Electric Company.

One of Manitoba's outstanding natural resources is fresh water fishery, providing employment for over 7,000 of its citizens and a cash income for the year, 1947, of $4,853,739. Statistics for 1946-47 show a yield of 28,696,600 pounds of choice edible fish. In terms of production of fresh water fish Manitoba ranks second only to Ontario. Thousands of tons of whitefish and the world famous Lake Winnipeg Goldeye are found in the great lakes of Manitoba.

Over 40 per cent of the land area of Manitoba is forested. Most common tree species are white and black spruce, aspen and balsam poplar, jack pine, tamarack, white birch, balsam fir and cedar. Throughout the wooded area of the province there are about 200 saw mills engaged in converting trees into lumber. The total value of forest products in the year 1947 exceeded $12,000,000. The annual amount of lumber cut on Provincial Crown Lands amounted to 51,400,000 feet B.M. Manitoba has one pulp and paper mill located at Pine Falls, north-east of Winnipeg. The mill's annual capacity of newsprint is 100,000 tons.

Industrial development in Manitoba is steadily increasing, a wide variety of smaller industries being established. Beet sugar, salt, vegetable oils, are among the products of more recent Manitoba industries. Expansion of fruit and vegetable canning facilities is now taking place.

Valuable resources of cement, gypsum, limestone and other non-metallics are located in rural areas. Deposits of bentonite, used in refining oils, have been developed, and the deposits are considered the world's best quality for refining purposes. The province is also a producer of iron and steel products and maintains cast iron and rolling mills which supply not only demands of the prairie provinces and Northwestern Ontario but also a foreign export business.

Health and education services have been expanded during recent years. Manitoba is now operating under a comprehensive Health Plan designed to provide adequate hospital, medical and nursing services throughout the province. Education has been placed on a more equitable financial basis by the introduction of new provincial grants which distribute $1·9 millions in such a way as to equalise funds for education in each of the 1,815 school districts which provide instruction for over 120,000 pupils.

NEW BRUNSWICK

The Province of New Brunswick, which is roughly about the size of Scotland, and is the largest of the three Canadian Maritime Provinces, comprises an area of 27,985 square miles. Its greatest width from east to west is about 190 miles, and from north to south approximately 230 miles. The State of Maine bounds it on the west, the province of Quebec on the north, the Bay of Fundy on the south, and the Northumberland Strait and the Gulf of St. Lawrence form the eastern border.

The greater portion of the province consists of lowlands, nowhere over 500 feet in height. But there are two highland areas: a narrow ridge in the south running parallel to Chignecto Bay, and a wider mountainous sector in the north-west where Mt. Carleton—highest peak—reaches 2,700 feet. Thus New Brunswick is mostly low-level, featuring rolling countryside, and varied and picturesque scenic vistas. Many lakes and a network of rivers, some of them long, winding waterways abounding in game fish, mark its geographical contours. The lowland area, of softer carboniferous strata, occupies a great triangular space, facing the Gulf of St. Lawrence, and bounded on the west by a line from Bathurst, on Chaleur Bay, to McAdam near the St. Croix River, and on the south by a line from that point to the provincial boundary at Northumberland Strait. In this area coal and natural gas and oil are found, mostly in the south and east.

Most important river is the St. John, which runs a course of 450 miles and drains a basin of some 21,500 square miles. It is next in size to the St. Lawrence—largest river on the Atlantic coast. At the mouth of this river the great rise and fall of the tides of the Bay of Fundy have created a phenomenon known as the "Reversing Falls." The St. John River is navigable by small steamship to Fredericton, 85 miles from the sea. The river valley is noted for its pastoral scenery and rich farm lands.

Historically the St. John waterway is important as the locale where the first settlers made their homes.

The climate of New Brunswick is even, with no great extremes of either heat or cold. Although surrounded on three sides by the sea the province does not suffer from the humidity that might be expected. In winter the thermometer occasionally drops below zero, but the dryness of the atmosphere leaves the climate bracing and the air clear. Snowfall varies from two to six feet in depth during the winter, but around the coastal areas snowfall is quickly dissipated.

Agriculture ranks second in importance in New Brunswick's economy. Potatoes, livestock, poultry and orcharding are the chief post-war crops. Soil and climate are specially adapted to the growing of many and varied crops. Farm operations begin about the middle of April each year, and once vegetation starts growth is most rapid. Chief crops are potatoes, oats, barley, wheat and buckwheat. The potato crop for 1946 was estimated at more than 16 million bushels—an average crop for this province. About 150,000 persons are engaged in agriculture.

The Province of New Brunswick ranks third among all the Canadian provinces in the extent of its commercial fisheries. Chief fish caught are herring, cod, haddock, hake, sardines, salmon, smelts, mackerel, pollock, alewives, shad, trout, scollops, lobsters, and oysters. Value of the fisheries is more than 13 million dollars each year; they employ close to 15,000 persons.

New Brunswick has the distinction of having been the first part of North America from which coal was exported. The same area, known as the Minto coal basin, and situated in the Grand Lake district, is still being mined. The province's mining valuation is based chiefly on coal, oil, natural gas, gypsum, stone, clay products, peat moss, iron and manganese, and of these coal is the most valuable. Coal is used chiefly for industrial purposes and by the railroads.

Growth of industry, primary and secondary, has marked the post-war years of this maritime province. In the trend to a more diversified economy new industries based on natural products, have come into existence. There has been a significant growth of small industries, many based on wood products. Since war's end, for instance, a number of special woodworking plants have sprung up. These manufacture furniture, doors and window sashes, bowling pins, hockey sticks, weather stripping and the like. The older industries, which furnish employment to a large number of New Brunswickers, include the sugar refineries at St. John City; cotton mills at St. John, Marysville and St. Stephen; boot and shoe factories at Fredericton; tanneries at Woodstock; stove foundries at Sackville; sardine and lobster canneries at Chatham and Black's Harbour; stone quarries in the Miramichi area; and iron foundries, wood-working, canoe, furniture, and candy factories.

New Brunswick possesses valuable sources of water power, much of which is used for commercial purposes.

New Brunswick has a total land area of approximately 18 million acres. Of this 14 million are covered with stands of merchantable trees. It is almost evenly divided between crown and granted lands. These facts indicate the importance of forestry to the provincial economy. About 20,000 men are employed in New Brunswick's woods in various capacities—more than in any other industry with the exception of agriculture. Total value of forest products in 1947 was placed at $123,000,000.

Methods of transportation include the railways, boat, airplane, and—increasingly—the automobile. So popular and convenient has auto travel become, that there has been a great interest in improved highways. Today this province has more than 1,000 miles of paved highway, which penetrate to every section. In addition there are more than 11,000 miles of good gravel roads.

The population of New Brunswick, census of 1941 was 457,401. The estimated population today is 476,000. The majority of residents are English speaking, although there are more than 136,000 of French descent, and a few hundred Indians. Most of the inhabitants are Canadian-born, but many also have come from the British Isles.

New Brunswick's educational system is undergoing comprehensive post-war expansion. Directed and controlled by the provincial government, education here is undenominational in character. The common school course provides instruction in the first eight grades free to all, and the high school course of three years is also free. Higher education may be obtained at such institutions as the University of New Brunswick, at Fredericton, which is largely maintained by the province; St. Joseph's University ar Memramcook; and Mount Allison University at Sackville. The New Brunswick Teachers' College, formerly the Provincial Normal School, which is situated at Fredericton, graduates many trained teachers each year. Technical training and vocational instruction are available for those interested.

New Brunswick has an international reputation as a place for recreation and particularly for sport angling and hunting. Because of its unspoiled freshness and natural outdoor attractions this province attracts thousands of visitors each year. It is characterised by magnificent rivers and river valleys, beautiful lakes, a 600-mile Atlantic coastline with wide sandy beaches, mighty forests, and an abundance of natural phenomena. Forest cover amounting to 80 per cent of its total area offers unusual opportunities for big game hunting and bird shooting; and the network of large rivers and lakes provides Atlantic silver salmon, trout, landlocked salmon, togue, bass, pickerel and other types of sport fishing. New Brunswick's expanding " good roads " programme is an important adjunct to a promotional programme aimed at showing the visitor from other places the sporting and recreational appeal to be found here. Paved highways extend to all towns and cities and a system of good secondary roads penetrate to camps and lodges in the interior regions. More attention is being paid to hotels and travel resorts today; last year the provincial government set up an Accommodation Board, one of its duties being inspection of all places of accommodation.

Great strides forward bringing the standards of health and social relations to a higher level have been taken in New Brunswick. In the course of expanding health and social services the province has added vitally important new divisions. These are Hospital Services, Venereal Disease Control, Cancer Diagnostic Service, Sanitary Engineering, Nutrition Services, and Tuberculosis Control.

New Brunswick has embarked on a $10,000,000 power development programme and that has meant the extension of power for the development of rural areas.

Capital city of New Brunswick is Fredericton, which is the seat of government, and the commercial centre of the interior. It is a seat of higher learning. Institutions of note include the Legislative buildings, the University of New Brunswick, the Teachers' College. The Anglican Cathedral, situated at the capital is considered one of the finest examples of Gothic architecture on the continent. Fredericton is also Military Area Headquarters for the province and also " J " Division Headquarters for the Royal Canadian Mounted Police.

St. John, the oldest incorporated city in Canada and the centre of the commercial life of the province, divides with Halifax the honour of being chief winter port of Eastern Canada. St. John Harbour is open to shipping all year round; its harbour is deep, sheltered and free from ice.

The " Reversing Falls " situated in St. John Harbour, is one of the natural wonders of the world. St. John has many large mills, factories, and machine shops, and its wharf and elevator facilities are extensive. It enjoys rail connection with all parts of the North American continent as well as steamship communication with almost every part of the world.

The city of Moncton is the eastern headquarters of the Canadian National Railways system and is an important commercial and industrial city. Among the larger towns in the province are Campbellton, Edmundston, Chatham, Dalhousie, St. Stephen, Newcastle, Bathurst and Woodstock. Cities and towns of New Brunswick have shown extensive growth in population since the beginning of World War II.

The east coast of the land now known as New Brunswick was touched by the Cabots—John and Sebastian—in 1497. Next came the French explorer Jacques Cartier in 1533.

Authentic history of the region begins with the coming of Samuel de Champlain in 1604. Entering the harbour of a mighty river on the feast of John the Baptiste, June 24th, Champlain gave the river the name of the Saint.

At the close of the War of Independence in 1783, many United Empire Loyalists emigrated to the continuing British Colonies. The first shiploads reached St. John on May 18, 1783. With this influx of settlers the erstwhile County of Sunbury was separated from Nova Scotia and erected into the Province of New Brunswick. The capital was located at Fredericton in 1785.

On July 1, 1867, the Provinces of Nova Scotia, New Brunswick, Quebec and Ontario were erected to the status of a Dominion by the British North America Act.

NOVA SCOTIA

The province of Nova Scotia is one of the most interesting parts of Canada, historically, geographically, and as a recreational region. Five years after the voyage of Columbus, John Cabot planted the British flag on the northern tip of Cape Breton Island, Nova Scotia. His feat gave to England a claim upon a continent which the colonising spirit of her sons made good in later time. The first permanent settlement of Europeans north of the Gulf of Mexico was made at Lower Granville in 1605. Here, during the winter of 1607, Champlain founded his famous Order of the Good Time, the oldest social organisation in America. It is still in existence and its membership exceeds 146,000 in all parts of the world.

King James the First of England and Sixth of Scotland named Nova Scotia " The Royal Province " in 1625, and granted a Royal Coat of Arms from which was derived the Nova Scotia flag. Nova Scotia has the proud distinction of being the first province of Canada and the first colony of Great Britain to possess a flag of its own. A Scottish order of knighthood known as the Baronets of Nova Scotia was created. The Order was conferred upon 140 persons and each was granted a barony of six by four miles along the Atlantic coast of Nova Scotia. These Scottish Baronets made an attempt to colonise the province in 1629 but the undertaking was a failure. The title is still inherited by several Scottish families.

From 1613 to 1763 Nova Scotia was a battle ground for British and French forces disputing the ownership of America. Old fort sites and battle grounds can be found the length of the province. New Englanders played an important part in the defeat of the French forces. Later, during the American Revolution and again in 1812, Nova Scotia was raided by American privateers until practically every port had some tale of assault and adventure.

Geographically, Nova Scotia is 374 miles long; from 60 to 100 miles wide; with an area of 21,428 square miles. Excepting the Isthmus of Chignecto, 17·5 miles wide, which connects Nova Scotia with New Brunswick, the province is entirely surrounded by water. Nova Scotia has 4,625 miles of coastline, guarded by 356 lighthouses and fog alarms. It thrusts far out into the Atlantic like a long pier, nearer Europe than any other part of the mainland of America, so that " Atlantic Time," an hour in advance of the rest of the continent, is standard. Halifax, Nova Scotia, was the " East Coast Canadian Port " which figured so prominently in wartime news despatches. Halifax, the first English town in Canada to celebrate its 200th birthday in 1949, was founded as a naval and military stronghold. It was used extensively by the British Navy during the 1914-1918 conflict, and hundreds of thousands of Canadian soldiers sailed from its docks.

During the last World War Nova Scotia served as the western anchor of the defence of the North Atlantic, furnishing strategic bases for sea patrols and battle reserves, while the year-round ports of the province handled vast shipping so essential to operations overseas.

Geography has given Nova Scotia prominence in the conflicts of the past four centuries. Her strategic position athwart the sea lanes gives her a dominant position in times of peace. Nearest of all Atlantic areas to the leading markets of the world, haulage costs are cut on imported materials, as on fabricated exports.

Nova Scotia is famous for its picturesque coastline, its harbours dotted with islands, its beautiful valleys and orchards. Forty salmon streams and over 500 trout lakes provide excellent fresh water fishing. The coastal waters of the province provide the world's best blue fin tuna and broadbill swordfish angling. Every blue fin world record, except two, made in thirty-seven years, has been made in Nova Scotia waters. The North America and Atlantic records for swordfish angling were also made in these waters. Nova Scotia has twenty-three fine golf courses, has tennis courts everywhere, has 100 miles of fine sand beaches and comparatively warm bathing along the Northumberland Strait; has white sand beaches and exhilarating surf bathing along the Atlantic coast. There is grand opportunity for hiking on roads off the paved highways, fine streams for canoeing. Nova Scotia has three Historic Parks, Cape Breton Highlands National Park, and four Game Sanctuaries. It well merits the title of " Canada's Ocean Playground."

The population of Nova Scotia is 621,000, with seventy-eight per cent being of British descent, and eleven per cent of French descent. There are no foreign language newspapers in the province. Forty families from the west coast of France, a country of dyked marshes, came to Nova Scotia in 1632, and named the new land " Acadia." The descendants of these pioneers are known today as " Acadians." In 1749 more than 2,500 English settlers founded Halifax. Four years later two thousand Protestant Hanoverians founded Lunenburg county. Several shiploads of Irish immigrants were added to the influx during the next decade, while seven thousand New England

Planters moved in to take over lands vacated by the Acadians.

Later there came eleven shiploads of Yorkshiremen to Cumberland and Kings counties. Then thirty thousand Loyalists came after the American Revolution, founding the town of Shelburne and flooding other areas to crowded conditions. Last of all came fifty thousand Highland Scottish during the first half of the nineteenth century, settling in Cape Breton Island, in Pictou and Antigonish counties. The descendants of those Scots still hold to the Gaelic and the kilt. Nova Scotia has the only Gaelic College in the world and her Highland Games are famous, as is her annual Gaelic Mod.

Outstanding facts about the province include the following. Nova Scotia is situated exactly halfway between the Equator and the North Pole, while it has a coastline of nearly five thousand miles and no part is more than fifty miles from the sea; hence the title given by visitors " the sea-conditioned province." Nova Scotia has the only salt mine in Canada, with workings 1,130 feet below the surface. The province has 1,421 miles of railway and approximately fifteen thousand miles of highway. There are no leased waters. A fishing permit costs only five dollars and anyone possessing a permit may fish anywhere. More fine draft oxen can be seen in south-western Nova Scotia than elsewhere on the American continent. And Nova Scotia has the world's largest lobster and scallop production.

Visitors are enthralled by the high tides. Burntcoat Head, on Noel Shore, is the point of the highest tides in the world. The average June and July tides exceed forty feet, have often exceeded sixty feet, and were recorded once at 103 feet. Nova Scotia has a forest area estimated at approximately ten million acres. It was the abundance of fine timber that stimulated Nova Scotia's ship building during the past century, until the province owned more shipping per capita than any other country in the world. The largest wooden ship built in Canada was constructed at Maitland, Nova Scotia.

Agriculture supports a larger proportion of the population than any other industry in the province, but mining and fishing employ large numbers.

ONTARIO

Bordering on the Great Lakes, vastest inland fresh water way in the world, Ontario extends 1,000 miles from east to west and 1,050 miles from south to north, covering an area of 412,582 square miles. Ontario's interest in and ownership of, the Canadian part of the Great Lakes (Superior, Huron, Erie and Ontario), are among its richest possessions. Of its land area approximately 237,000 square miles are in forests owned by the people of Ontario.

Ontario is about equal in size to the combined areas of the following fourteen states of the United States: Main, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Ohio, Michigan, Indiana, Illinois and Wisconsin.

Ontario's population, according to 1948 figures, is approximately 4,500,000. The capital and seat of the Legislative Assembly, governing body of the province, is Toronto, second largest city of the Dominion. The Ontario Legislature consists of 90 members, elected by popular vote for a period of five years. Ontario has a Progressive-Conservative Government. Colonel The Hon. George A. Drew, K.C. is the Premier.

According to 1948 statistics there are 29 cities in Ontario, 145 towns, 157 villages, 569 townships and 11 improvement districts. Of the cities, Toronto, Hamilton, Ottawa, Windsor and London are the five largest. Toronto is the largest city in Ontario with a population of approximately 700,000.

Geographically the province of Ontario has two chief areas, northern and southern, the latter being more highly developed in the fields of agriculture and manufacturing, while the north supplies vast mineral and forest wealth.

The northern area also possesses outdoor vacation facilities of such magnitude that the business of catering to the tourist traffic is of major importance in the provincial economy and is under the direction of a provincial cabinet minister whose department is known as Travel and Publicity.

Northern Ontario is a holiday and sportsman's paradise. Comprising several hundred thousand square miles of virgin forest, lakes, rivers and streams, they are the natural haunt of a wide variety of fish and wild game. Here is the home of the speckled trout, black bass, pickerel, maskinonge, deer, moose and bear, ruffed grouse, migratory waterfowl and other types of small game.

Sensible conservation laws, game sanctuaries and a restocking policy have enabled the province of Ontario to offer sportsmen an abundance of most species unsurpassed anywhere. Summer and winter health resorts ideally located in beautiful and picturesque Northern Ontario attract tourists from all parts of the world.

Stretching over such a great area, the Province of Ontario naturally experiences variations of temperature. The Niagara Peninsula, known as the " Peach belt " with its orchards and vineyards, may readily be compared to California, while in northern sections along Hudson Bay, snow has been known in July. However most of the province lies south of the Isotherm of 60 degrees mean July temperature and enjoys pleasant, warm summers and clear cold winters.

Average yearly temperatures for typical stations are:—North, 40·7 degrees; south, 47·3 degrees; east, 41·7 degrees and west, 45·3 degrees. Average summer temperature in the Northern Great Lakes area is 60 degrees.

Annual precipitation (64 *year average*):—Rainfall, 24·32 inches. Snowfall 73·4 inches. The west and southwest receive highest average rain and the north and northwest receive highest average snowfall. Hours of sunshine are highest at Toronto (2,047·3).

Ontario is richly endowed with water power resources. Because of the absence of workable coal deposits the water falls and rapids of its great river systems, notably Niagara Falls and Ottawa River have been used to develop electric power under public ownership.

Nearly all of Ontario's electric power is now developed and supplied by the Hydro-Electric Power Commission of Ontario. At the end of 1947 the Commission was serving 932 municipalities in Ontario.

Several new hydro developments presently being constructed at a cost of more than $300,000,000 will make available more than 1,000,000 additional horse-power to the ever increasing number of hydro users.

To-day throughout the Province, hydro service reaches into almost every phase of daily life—in the home, on the farm, in commerce and in industry—lightening the burdens of the housewife and the farmer, making possible to urban and rural consumers alike, a new, modern, high standard of living.

Highways and Transportation

Ontario has a far-flung system of traffic arteries and

King's Highways. The total road mileage exclusive of city, town and village streets is 72,958·6 miles. The breakdown of this total mileage is:—

Paved highways	7,627·9	miles
Secondary roads	2,690·5	„
County roads	8,892·6	„
Organised Township roads ..	48,202·7	„
Development and mine roads ..	5,544·9	„

The larger population centres are served by an unexcelled inland waterway; railways, highways and commercial airlines, all serve to promote the welfare of the province. Ontario has 12 railroads, having more than 10,000 miles of single track or 25 per cent of the total railway mileage in Canada.

Air transport has played an important role in the development of Ontario's northland, especially in the expansion of mining activity. Aircraft are also used for forest sketching, mapping, and fire detection and suppression. The Ontario Government pioneered in this work and has a very efficient firefighting organisation. In 1946 there were 51 licensed airports in Ontario.

Manufacturing

Ontario is the wealthiest and the leading industrial province of Canada. Abundant natural resources, water power, transportation and strategic location in the North American continent are contributing factors to Ontario's economic pre-eminence in the Canadian scene.

Ontario's industry covers a wide range—iron, steel, non-ferrous metals, chemicals, electrical appliances, synthetic rubber (Polymer plant, at Windsor), pulp and paper, wood working, furniture, glass fabrics, rubber goods, plastic products, leather goods, nylon fabrics, knitted goods, agriculture, starch, mining, tourism (more than 18,000,000 visitors spent approximately $147,000,000 in Ontario between April 1, 1947 and March 31, 1948).

In the manufacturing field alone, omitting agriculture, forest and mineral products, the net value of Ontario's manufactures, is one-half of the total Canadian production.

Ontario is responsible for 68 per cent of Canada's total iron and steel production and almost its entire output of automobiles, agricultural implements and scientific equipment. In 1946, Ontario had more than 15,500 manufacturing establishments, large and small, using approximately 4½ billion dollars in capital, employing more than 600,000 workmen, paying a billion dollars in wages and using 2¼ billion dollars in materials with a gross production of between 4 billion and 5 billion dollars.

Ontario pays nearly 50 cents of every tax dollar which goes into the federal treasury, approximately 41 per cent of all retail sales in Canada are made in Ontario. In 1946 Ontario workers earned 40 per cent of the total salary wages, and supplementary income of the Dominion of Canada.

Agriculture

Agriculture ranks first on the list of primary industries in Ontario. In 1947 agricultural production was valued at $864,000,000 and the cash farm income was approximately $546,000,000. In 1948 it is estimated agriculture production will exceed one billion dollars. Ontario produces more agricultural products than any other province. During August, 1947, more than 350,000 persons were employed in farming. There are approximately 179,000 farms in the province, with no fewer than 500,000 people depending directly upon agriculture for their livelihood.

The Ontario farmer enjoys a high degree of self-sufficiency. His cash income is derived from a wide range of products—cattle, hogs, poultry, eggs, dairy products, tobacco, fruit, vegetables, oats and grain.

Ontario is the largest producer of milk and cheese in Canada and ranks second to Quebec in the production of butter. Ontario ranks second in the production of honey and is practically the sole producer of tobacco. It is the most highly capitalised province with respect to fur farms which amounts to $5½ million.

Ontario's lumbering forests industry is another stimulus to its economy. In 1946 some 44 pulp and paper mills in Ontario gave employment to more than 14,000 workers and paid almost $32·8 million in salaries and wages. In secondary industry there are approximately 2,000 plants using pulp or paper or lumber as the primary raw material. These secondary industries provide work for over 50,000 with payrolls amounting to $75 million.

The forests of Ontario and the primary and secondary industries to which they contribute provide work for nearly 100,000 people with payrolls totalling some $150,000,000.

Mining

Ontario is Canada's greatest gold producing province and leads in all mineral production. Ontario mines since 1891 have produced more than 4 billion dollars worth of minerals and mineral products. Ontario is the world's greatest producer of nickel. The nickel-copper mines at Sudbury, and the gold fields of Northern Ontario which produce 60 per cent of the Dominion's gold, are the two most important branches of Ontario's mining industry.

Total mineral production for 1947 amounted to $241,371,337 of which gold accounted for approximately $67,000,000. In 1940 gold production reached its peak with $125,575,000 worth being mined. From 1938 to 1942 inclusive, Ontario yearly produced more than $100,000,000 in gold. Rising mining costs, shortages in labour and the loss of $3·50 an ounce on gold, in 1946 through the Dominion Government paring the Canadian dollar with the American dollar contributed to the decrease in the present gold production.

Education

Ontario for long now has a primary and secondary school educational system for which the province now pays an average 50 per cent of the overall cost, that is acknowledged as among the best systems in the world.

Bible study is now part of the curriculum, cadet training has been re-established and a guidance branch is giving valuable aid to Ontario youth in choosing careers. Ultra-modern composite schools have been opened in various parts of the province. Scholarships have been made available to students seeking higher education and a physical training programme has been organised.

In 1943 a programme of financial assistance was inaugurated in Ontario for students of adequate ability who, because of the lack of sufficient funds, were unable to complete their formal education. Since 1944, the awards available under the programme have been announced as Dominion-Provincial Student-Aid Scholarships and Bursaries in virtue of an agreement reached with the Dominion Department of Labour whereby the Dominion Government agreed to assist the province financially in the programme.

For the academic year 1948-49 the designation "Scholarship" has been replaced by "Type A Bursary" since it is felt that the term "Bursary" is more in keeping with the intention of the programme. The awards are cash grants paid directly to successful applicants to help defray the cost of their education.

Since the inception of the programme in 1943, more than 3,100 awards have been made at a cost approaching $680,000. Of this amount approximately $517,000 has been supplied by the Province and $163,000 by the Dominion Government. The number of awards has risen from 192 in 1943 to more than 960 in 1947.

Fifty-six rural high schools are now offering special courses in practical agriculture, built up around agricultural interests of local communities. With universities co-operating, practical agriculture does not debar a candidate from preparing for admission to universities.

The Ontario Agriculture College at Guelph, Ontario, is open to all who desire to learn the latest and most modern methods in practical and scientific farming. The University of Toronto is one of the largest Universities in the British Empire and is acknowledged as one of the finest institutions of learning in the world. Queen's University at Kingston, Western at London, Ottawa, McMaster at Hamilton and the Royal College at Kingston, are all institutes of high standing. A University for northern Ontario is also being planned.

Social Progress

Ontario has made much social progress. The Mothers' Allowances have been increased from $42 monthly to $50 basic, plus $10 more, based on need. For each extra child the rate is now $10, as against the former rate of $6. At present 6,574 mothers and 19,932 children are receiving these benefits through the Department of Public Welfare.

Provincial grants of $1,000 to $2,000 per bed for capital expenditure on new hospital construction have been instituted in Ontario.

PRINCE EDWARD ISLAND

Canada's smallest and only Island Province, Prince Edward Island, is situated in the Gulf of St. Lawrence north of Nova Scotia and east of New Brunswick on the eastern coast of Canada. The Island is known by many names but most familiar of these are " The Garden of the Gulf," " The Million Acre Farm," and " The Kentucky of Canada."

The soil of the Province is very fertile, being of a loose red sandy loam which lends itself most acceptably to the outstanding industry, namely, Agriculture. Most farmers on the Island engage in mixed farming which includes the raising of crops, cattle, horses, swine, sheep, poultry, and market gardening. The outstanding agricultural crop is that of the potato. Potatoes are shipped in large quantities to the mainland of Canada, the United States, and other countries. Large shipments of cattle and poultry are made to such places as Newfoundland and hogs and sheep are exported to the mainland daily for local and overseas markets. Other products worthy of mention, and exported in quantity, are those of butter and eggs.

Another sub-industry which has sprung up out of agriculture is that of fox farming, and Prince Edward Island is famous the world over as being the home of the Silver Fox Industry.

The second industry of importance on the Island is that of fishing. Cod, haddock, mackerel, lobsters, and oysters are taken in considerable quantities and exported to other parts of Canada, the United States, etc.

Rising out of both the fishing and agriculture industries, one finds smaller industries such as, fish processing and the canning of vegetables, meats, fish, etc. There are several small canneries on the Island which put up vegetables, meats, fish, fruits, for export.

The other industry of most importance on Prince Edward Island is the tourist industry. This industry has grown rapidly until today it threatens to displace the fishing industry as that of second most important industry to the Province. Great numbers of visitors from other parts of Canada and the United States are visiting the Island annually and a few are now trickling in from other countries.

The Island is essentially a rural community with but one small city, Charlottetown, which has a population of approximately 15,000 persons. Other incorporated towns are Souris, Georgetown, Montague, Kensington, Borden, and Alberton. The Island is governed by a Legislative Assembly consisting of thirty members elected by the people. From this Legislative Assembly is chosen an Executive Council comprised of members of the party in power. This Council and the Lieutenant-Governor administer the affairs of the Province.

The Island can be reached from the mainland by rail via a large ice-breaking ferry operated from Cape Tormentine, N.B. to Borden, P.E.I. Another ferry service is operated at the south-eastern end of the Island by Northumberland Ferries Ltd. This ferry service consists of two automobile and passenger carrying ferries between Wood Islands, P.E.I. and Caribou, N.S. The other means of transportation to the Island is by air. Maritime Central Airways operate a modern and efficient air service to and from the Island on a regular schedule.

Due to the fact that far-thinking men desirous of creating a united Canada met in Charlottetown in 1864 to discuss preliminary arrangements for confederation of all Canada, a great number of visitors are interested in visiting the Confederation Chamber where these Fathers of Confederation met and today this room is more or less preserved as a shrine with an attendant to explain various documents etc., which one sees there. Due to the fact this important meeting was held in Charlottetown the Island has also acquired the title of " The Cradle of Confederation."

QUEBEC

The upward surge of the Province of Quebec's economy during the past three years is unprecedented in its history.

Since 1945, close into 4,000 manufacturing plants have, in fact, been established within the Province. Of this number over 2,500 are in cities and 1,500 are situated in towns and rural municipalities.

Many of the new enterprises are of first importance either because of the variety of their products or the highly paid employment they provide for skilled workmen. They constitute an enormous asset to the country as a whole, to the Province itself and to the municipalities in which they are located in particular.

Aside from the newly established plants mentioned, many of Quebec's older industries have developed considerably during the past few years.

To the astute business man aware of the great wealth of natural resources—especially water power—this industrial expansion will not have come as a surprise. The harnessing of the water-falls that abound in Quebec's territory furnishes motive power and electricity for pulp and paper mills, facilitates the development of electro-chemical and metallurgical industries and contributes to the extensive use of electricity both in the home and in the industrial field.

The actual turbine installation in the Province of Quebec represents nearly 57 per cent of the total installation for Canada.

Available 24 hour power at 80 per cent efficiency	13,064,000 h.p.
Turbine installation	5,848,572 h.p.
Capital invested in electrical industry	$817,443,304

The theory had been advanced in some quarters that a superabundance of electricity in the postwar period might prove dangerous to economic equilibrium. Such has not been the case and there is manifestly a pressing need for it everywhere.

To meet this need the Quebec Government intends to promote the further development of hydraulic resources. The Honourable Maurice Duplessis, Premier of the Province, announced recently that hydro-electric energy would be considerably increased within the next few years. Over a million h.p. will be added to existing installations, thereby providing the Province with hydro power of greater magnitude than most countries of the world.

Among the more important projects are the following:—

At the Beauharnois station of Quebec-Hydro an additional 250,000 h.p. will be developed;

By the end of 1948, the Shawinigan Water and Power Company will have added 195,000 h.p. to the plant at Shawinigan Falls;

The same company will also carry out work on its plant at La Trenche Rapids on the St. Maurice River, which will increase the power developed there by 350,000 h.p., within the next two or three years.

It is self-evident that the wealth of hydraulic resources is of primary importance, since electric energy plays such a vital part in modern industrial development.

In the production field the latest statistics show clearly that manufacturing industries take first place and represent about 70 per cent of the global production of the Province.

The following table indicates the value of Quebec production by various categories:—

Manufactures	$2,531,903,839
Agriculture	272,689,000
Forestry	395,014,638
Fisheries	11,540,590
Trapping	3,363,563
Mining	225,881,456
Electric Power	80,404,232
Construction	150,166,258
Custom and Repair	80,147,000
Total ..	$3,751,110,576
Less Duplication ..	442,311,599
Grand Total ..	$3,308,798,968

Agriculture

At the last federal census, taken in 1941, there were 154,669 farms in the Province of Quebec, covering a total area of 18,000,000 acres, of which half was improved land, that is land cleared and cultivated from time to time. This vast agricultural domain comprising only 5·4 per cent of the Province's total area and about two thirds of its arable land, is a great source of revenue. In fact, farming is still Quebec's chief primary industry. In 1943, the net value of agricultural production—211 million dollars—exceeded that of the forest.

Although climate, soil and market conditions vary greatly in different sections, dairying remains the fundamental type of farming in the Province and is practised even in the fertile St. Lawrence Valley. Over 80 per cent of the farms in Quebec have a herd of milch cows. Milk sold in cities and towns and the production of butter and Cheddar cheese, in the order of importance named, constitute the chief sources of revenue from dairying. However, during the last war, the production of milk concentrates—evaporated and powdered milk—as well as the production of ice cream increased considerably. The total revenue from dairying on Quebec farms was nearly 106 million dollars in 1944.

Most Quebec farms also derive income from the sale of bacon hogs, calves and cows for slaughter. In the Appalachian Mountain region, in the Laurentians and in such districts as the Lake St. John region, which are distant from the big market centres, farmers go in for sheep raising and the production of wool. Conditions are favourable to poultry raising and this branch of farming has greatly expanded in recent years. There were 2,600,000 chicks hatched in 1947 and the sale of eggs and fowl exceeded 35 million dollars.

Despite the importance of dairying and live-stock raising, field crops are another feature of Quebec farming. The area of cultivated meadows comprises over four million acres, pastures cover about five million acres more than half of which are in seed, oat fields cover another million and a half acres. Mixed grains, barley, fodder corn and turnips are consumed for the most part on the farms. Among the field crops marketed are potatoes, tobacco, fibre flax, peas, beans, cereals, forage crops, sugar beets, etc.

Within the radius of cities and where tourist travel is extensive, truck farming has rapidly developed. Commercial orchards are principally found in the Montreal and Eastern Townships districts. In 1944, fruit and vegetable crops were valued at over 11 million dollars. The gathering of blueberries, which grow wild in great abundance in the Chicoutimi, Lake St. John and Abitibi-Temiscamingue regions, has become an important enterprise and the 1946 crop brought in over 2 million dollars. The production of maple sugar and maple syrup in Quebec exceeds that of any other province and is, in fact, greater than that of the United States. The total value of maple products in 1947 amounted to more than 11 million dollars.

Space does not permit mention of the numerous and vaired kinds of associations and organisations which provide assistance to Quebec farmers, both in the economic and social fields. For instance, in the Fall of 1946, there were 639 farmers' co-operatives, with an aggregate membership of 59,700 and the sale of farm products and agricultural equipment totalled 70 million dollars. It seems justifiable to predict that the developments of the co-operative movement in Quebec will result in new progress in the sphere of agriculture.

Forests

In Quebec the forests, next to agriculture, are the chief source of wealth. The total area of forest is estimated to be 417,647 square miles, of which 264,163 square miles carry merchantable and accessible timber. Spruce comprises one-half of the total stand, but there are large quantities of white birch, yellow birch, jack pine, poplar, balsam, maple, white pine and red pine.

The pulp and paper industry is the most important manufacturing industry in the Province. More than one-half of the paper manufactured in Canada is made in

Quebec. Most of the paper and also some of the pulp is exported to the United States, but a considerable quantity of paper goes to Great Britain. Over 4,500,000 cords of pulp wood are consumed annually and the products of the pulp and paper industry are valued at over $360,000,000.

Quebec ranks next to British Columbia in lumber exports, which also go mainly to the United States and Great Britain. The annual value of the lumber, lath and shingles manufactures is over $49,000,000.

Mining

Quebec, in the last twenty-five years, has become an important producer of metals. Gold, copper, silver and zinc are now mined in substantial quantities.

The Province continues to be an important producer of industrial minerals, among which asbestos is outstanding as supplying more than half the world's output of this mineral. Before World War II, this substance was shipped to most of the industrial countries of the world; its centres of production are in the Eastern Townships.

Quebec is also known for the importance of its large quarries of building materials; much of their production is exported outside its boundaries.

The mineral industry in Quebec has been the object of a noted mining and metallurgical development. Besides the many new mines, in Western Quebec, there is to be found at Noranda one of North America's foremost copper smelters, the product of which is refined at Montreal East.

Asbestos fibre is the raw material entering in the manufactured products of several plants; lime and limestone are used extensively in the chemical processes.

One of the world's outstanding metallurgical plants is that of the Aluminium Company of Canada at Arvida, in the Chicoutimi area, where aluminium metal is obtained from imported bauxite.

Among the varied other mineral products of Quebec, mention should be made of arsenic, chromite, lead, molybdenite, selenium, titaniferous iron ore, feldspar, magnisitic dolomite, mica, iron oxide, peat, pyrite, soapstone and industrial sand.

Year	*Metals*	*Industrial Minerals*	*Building Materials*	*Total*
	$	$	$	$
1941 ..	59,126,794	26,562,446	14,010,787	99,700,027
1942 ..	61,083,964	28,625,041	14,695,141	104,404,146
1943 ..	59,727,333	29,637,056	12,475,910	101,840,299
1944 ..	51,520,713	26,763,353	11,914,673	90,198,739
1945 ..	48,082,817	29,045,463	14,442,702	91,570,982
1946 ..	40,602,170	31,573,378	20,038,108	92,213,656
1947 ..	49,040,396	35,212,947	26,374,065	110,627,408

Fishing

The Gulf of St. Lawrence, the Baie des Chaleurs, the St. Lawrence River, and its tributaries and the innumerable lakes throughout the Province of Quebec abound in a great variety of fish. Quebec's fishing grounds provide a means of livelihood for a considerable portion of the population and are, besides, a great attraction to sportsmen.

The chief commercial varieties of fish are, cod, herring, mackerel, plaice, halibut, lobster, sturgeon, shad, eel, catfish, carp, white fish and tommy cod. Others, notably salmon, are fished for both commercial purposes and sport: anglers seek ouananiche, speckled trout, salmon, Quebec red trout, rainbow trout, muskellonge, smallmouth bass, doré and pike.

The area of the Province of Quebec is so extensive that many of its rivers and lakes have never been fished and constitute an ample reserve for years to come. Nature has been lavish and it is estimated that over a million lakes dot Quebec's territory.

Transportation

The Province of Quebec is well provided with railways. The headquarters of the Canadian National Railways and the Canadian Pacific Railway are at Montreal, and various lines of these railways connect Montreal with Toronto, Ottawa, Winnipeg, Vancouver, Quebec, St. John, Halifax, and New York, Philadelphia, Washington, Boston, Detroit, Chicago, and other United States cities. The Quebec Bridge—one of the world's greatest bridges—over the River St. Lawrence, a few miles from Quebec City, couples up the eastern section of the Canadian National System with the western lines, and makes possible a direct connection between Halifax and Vancouver or Prince Rupert. By its line which traverses the province from east to west and connects at Cochrance, Ontario with the Temiscaking and Northern Ontario Railway, the National System plays an important part in opening up a vast and rich territory. It also runs to the Rouyn mining field and the Lake St. John country, and to Murray Bay on the north shore and Gaspé on the south shore of the St. Lawrence. The Main line of the Canadian Pacific Railways runs from Saint John, New Brunswick, through the Eastern Townships of Quebec to Montreal, and then westward via Ottawa, Winnipeg, Regina, Calgary and Banff to Vancouver. The same railway has an elaborate system of branch lines throughout the province, which connect with through lines to Toronto and all parts of Canada and the United States. There are also a number of other railway companies, with lines running in various directions, especially in the extreme eastern section of the province.

Both Montreal and Quebec are connected by steamship during the summer months with all parts of the world. The St. Lawrence route, by reason of its shortness and beauty, is a favourite both for freight and passengers proceeding to Europe and other parts of the world.

Education

Quebec, unlike the other Provinces, provides a dual system of public schools, based on religious belief. Public schools, both elementary and secondary, are either Roman Catholic or Protestant, and the courses of study and regulations are framed by the Roman Catholic and Protestant Committees of the Council of Public Instruction for their respective schools. This dual system operates under a common law and is administered by the Department of Education, a branch of the Department of the Provincial Secretary. The Superintendent of Education has the general direction of the Department, assisted by a Catholic and a Protestant Secretary and several officials. The local school boards are elected by the ratepayers; the local religious majority, whether Protestant or Catholic, elects a board of five commissioners, and the local religious minority elects a board of three trustees. This plan of complete freedom as to religion and language works well throughout the Province.

In 1943-44, 550,000 pupils (485,000 Catholic, 65,000 Protestant) were enrolled in 8,900 schools under 1,950 school boards. Monies spent for these school boards and the Department of Education amounted to $34 million. Besides, private schools enrolled 60,000 pupils.

The Roman Catholic classical colleges are a special feature of education in Quebec. These institutions (32 for boys, 14 for girls) offer an eight year course after the completion of elementary school, and are somewhat comparable to French *lycées*. The first four years constitute high school; the four last lead to a degree of Bachelor of Arts, conferred by a University, either Laval or Montreal, depending upon the college's affiliation. The courses offered include French, English, Greek, Latin, History, Religion, Philosophy, Science and Mathematics. The training given girls in Intermediate and Regional Household Science schools has also attracted much favourable attention in recent years.

There are four universities:—The University of Montreal and McGill, both located in Montreal, Laval University in Quebec, and Bishop's University in Lannoxville, with an aggregate enrolment of 12,000 students.

Technical Education

Technical or vocational education forms a separate unit in the Province of Quebec's system of Public Instruction. It comes under the authority of the Minister of Social Welfare and Youth and comprises three categories. The first consists of five Technical Superior Schools situated in Montreal, Quebec, Three Rivers, Hull and Shawinigan Falls. In the Second category there are thirty-four Schools of Arts and Crafts located in various centres thoughout the Province. The School of Graphic Arts and the Cabinet-making School in Montreal, the Paper-making School in Three Rivers and the Textile School in St. Hyacinthe come under the third, which also includes correspondence courses and the various educational agencies provided under the Youth Aid Act, the most important of which are vocational guidance, an employment office and popular courses. All these schools and agencies are co-ordinated under a Director General and a Director General of Technical Training.

Cities and Towns

Canada's largest city and its commercial metropolis is Montreal, which holds a commanding position relative to both ocean and river navigation. Though 1,000 miles inland, large ocean steamers anchor at its wharves in summer, and the Lachine Canal and connecting waterways give access to the commerce of the Great Lakes. The city is a great railway centre, being the headquarters of the Canadian Pacific Railway and Canadian National Railways, and is connected by several lines with all parts of Canada and the United States. The harbour of Montreal, in extent and equipment, is one of the finest in the world; it is Canada's chief gateway for the export and import trade of the country. Almost every Canadian industry finds representation in the city's marts of trade. Montreal offers exceptional educational advantages, from primary to professional and religious instruction, and there are several well-equipped hospitals and many philanthropic institutions. Its public buildings, churches, hospitals, and the homes of its financial institutions are among the finest in Canada. The population of Montreal according to the census of 1941 was 1,250,000.

Crowning with its citadel the bold and precipitous front of Cape Diamond, Quebec is one of the most picturesque cities of America. In the winding streets, narrow and steep, of the old lower town are still found the strong stone houses built before the historic battle of the Plains of Abraham. The capital of the province, it has a population of about 200,000 largely of French descent. Its fine Legislative Buildings are situated in extensive grounds and the Court House, City Hall, and other structures for municipal use are all noteworthy. Laval University has there its headquarters in imposing buildings.

A great many manufacturing industries have been established in the city within the past few years and business has grown considerably as a result.

Hull, on the Ottawa River, situated on the north bank of the river opposite Ottawa, the Capital of Canada, is a lumber and paper manufacturing centre, with a population which numbers about 40,000. Three bridges across the Ottawa River connect it with Ottawa. The forceful and picturesque water-power of the Ottawa and Gatineau Rivers furnishes propelling force for the electric railways and power for the lighting system, as well as for the sawmills, pulp mills, paper and other factories located in both Hull and Ottawa.

Sherbrooke, located in the Eastern Townships, possesses decided advantages as an industrial centre. The city is at the confluence of the Magog and St. Francis Rivers, the source of great electric power which is utilised for its industries. One hundred miles southeast of Montreal, and on five railway lines, it is accessible from all the larger centres of the East, and one night's journey from Portland, Boston and New York. Sherbrooke has many factories, several of which are branches of United States firms. The principal products are silk hose, gloves and underwear, yard silk, woollen goods, tyre fabrics, scales, valves and jacks, locomotive superheaters, mining machinery, air drills, and compressors, structural steel, rubber goods, jewellery, watchcases, mesh bags, reed fibre, carpets, box toes, patent medicines, manganese steel castings, etc. The most extensive asbestos mines in the world are located in this district. Much asbestos, weedpulp, maple sugar, and manufactured goods are exported abroad.

Three Rivers, at the confluence of the St. Lawrence and St. Maurice Rivers, 72 miles southwest of Quebec City and 92 miles northeast of Montreal, is another important manufacturing city. Its chief industries are cotton, pulp and paper mills, lumbering, textile factories and shipyards. It is the centre of a productive farming country and a port of growing importance. It is one of the oldest cities in Canada.

Chicoutimi, situated on the Saguenay River, has witnessed an economic, industrial and commercial expansion of considerable proportion, within the past few years. The opening of the aluminium works at Arvida and the electric power development at Shipshaw are the principal contributory causes. Among the new industries, the more notable are:—wool spinning, manufacture of aluminium canoes, pottery, etc., etc. The population is about 20,000.

Sorel, at the confluence of the Richelieu and the St. Lawrence rivers, is an industrial city and a port for ocean going vessels. Shipbuilding is the chief industry and the Sorel shipyards are the largest in Canada.

St. Johns, on the Richelieu River at the head of the Chambly Canal, forms a link in the water highway between Montreal and New York. The major portion of its population is actively employed in the numerous and prosperous industries. The large factory of the Singer Sewing Machine Company is situated in St. Johns.

SASKATCHEWAN

Saskatchewan is the central prairie province, being bounded on the east by Manitoba and on the west by Alberta. Its southern border is the 49th parallel separating western Canada from the United States of America while on the north the parallel of latitude 60 divides Saskatchewan from the Northwest Territories. The province is 393 miles wide at its southern boundary and 277 miles wide at its northern boundary. The distance from north to south is 761 miles, and the total area is 251,700 square miles.

Geography

Geographically Saskatchewan is divided into six regions. Cypress Hills, a triangular-shaped area in the southwest corner of the province, is typified by rolling hills blanketed with spruce and poplar woods and interlaced with numerous streams and fresh water springs. The remainder of the southern quarter of the province is composed of Saskatchewan's famed prairie lands or open plains. North of the prairies is an east-west belt of parklands, its green hills and woods contrasting with the gold of the prairie. Still farther north is a broad strip of commercial forest, its most valuable product being white spruce. Almost the whole of Saskatchewan's northern half is covered by a rocky apron known as the pre-Cambrian shield which supports heavy forest and an extensive lake and waterway system. Saskatchewan's main waterway is the Saskatchewan River which courses through the northern part of the province's southern half on an east-west route and extends a tributary (South Saskatchewan River) south across the Alberta-Saskatchewan boundary.

Government

The Government is vested in a Legislative Assembly of 52 members elected for a maximum of five years. During the provincial election of 1944 Canada's first socialist government came to power in Saskatchewan. This government, the Cooperative Commonwealth Federation (CCF) was returned to office June 24, 1948.

History

In company with Alberta, Saskatchewan is the youngest Canadian province, having been founded in 1905. Previously the two were part of the Northwest Territories. The first notable interest in Saskatchewan came in 1895 when the world, emerging from a depression, found itself in the midst of a tremendous demand for wheat. Saskatchewan's prairies proved ideal for the cultivation of grain, and attracted by offers of free land, thousands of settlers came west from eastern Canada and north from the United States. By 1912 the province was considered completely settled. Through the first World War, Saskatchewan contributed heavily in manpower and the products of its vast farm lands. The demand for wheat did not diminish during the post-war era, rather increased due to the wide-spread devastation of European farm lands and the internal strife in Eastern Europe. However, during the 1930's Saskatchewan was struck by a full decade of drought, which, coming coincident with an economic depression, proved no less than a debacle to the province. But prices lifted and good weather returned in time for World War II. Again Saskatchewan contributed heavily for the cause of democracy. Today, Saskatchewan is on the upgrade, striving to repair the damage to its economy done by wind, sun and man. The people of Saskatchewan, having suffered through common hardships that once placed one out of every two on the relief rolls, are among the most unified anywhere.

Industry

Agriculture is by far the most important industry in Saskatchewan. Its farm lands comprise almost 40 per cent of the total cultivated acreage in Canada. Saskatchewan wheat fields produce about 50 per cent of all wheat grown in Canada, having an annual production of about 200,000,000 bushels. Other grain and livestock production figures follow:—

Oats	80,000,000 bushels	$48,000,000
Barley ..	45,000,000 bushels	37,800,000
Rye	6,780,000 bushels	21,967,000
Flax	4,200,000 bushels	19,824,000

Saskatchewan had 1,511,000 cattle at June 1, 1947—up from the 1,499,000 at the same date in 1946, and cattle marketings were 114 per cent higher than the pre-war figures.

Hog population	500,000
Hens and Chickens	12,780,000
Turkeys	626,000
Milk production	1,886,565 pounds
Butter	36,330,000 pounds
Cheese	319,000 pounds
Eggs	40,066,000 dozens
Honey	5,802,000 pounds

In all, about 58 per cent of Saskatchewan's population is engaged in agricultural production and a large portion of the remainder, being engaged in services or processing agricultural products, are directly dependent on good weather, good crops and good prices, for their welfare.

Mineral Development

Mineral production in Saskatchewan stands as a great potential stabilising element in the province's economy. Not only are its demands on the weather less exacting than those of agriculture, but its potential rate of production can be calculated well in advance by the engineer and the prospector. However, mineral production in Saskatchewan, until the 1930's, reflected how clearly the province had been stamped as an agricultural plant. Between 1905 and 1936 mineral production in this province rose slowly from $500,000 to $3,816,000. But, as the depression and the drought continued, Saskatchewan underwent a growing interest in natural resources other than its overworked soil. By 1946 mineral production figures had shot up to $25,812,000 and the following year rose another 25 per cent to $32,339,000. Still a very young industry, mineral production in Saskatchewan today has an impressive future. Beneath its ancient pre-Cambrian shield lie unknown reserves of gold, silver, nickel, copper, zinc and other precious metals. Recently what is believed to be one of the largest deposits of Uranium in North America was discovered on the southern fringe of this region. On the province's western boundary, oil fields are turning up ever greater production figures. In the year 1946-47 this field quadrupled its production bringing total output to 535,000 barrels. At present 168 wells have been drilled and another 150 are expected to be drilled this year. Coal fields in the south-eastern corner are taking a more prominent place in the province's economy and a $1,000,000 salt industry has sprung up on its west boundary which plans to turn out 25 tons per day. At Chaplin in the southwest corner the largest and most up-to-date sodium sulphate plant in the world went into operation a few months ago. Immense deposits of clay are also found in Saskatchewan and have been pronounced to have a material strength greater than any on this continent or in England. Annual production of clay is 22,000 tons.

Manufacturing

There are somewhere over 1,000 privately owned industrial establishments in Saskatchewan and this figure is increasing as the post-war boom continues. In addition the provincial government has founded a number of new Crown industries. Among these are a tannery, a shoe factory, a woollen mill, fish, timber and fur marketing agencies and two fish filleting plants. Moreover, a box factory and a brick plant were purchased, their machinery modernised and production output stepped up. In January, 1946, the government established the Saskatchewan Transportation Company to take over operation of Saskatchewan's bus services. Fifty-two new buses were purchased, new depots erected or purchased and the entire system extended to serve Saskatchewan's smaller centres. This service now ranks with the most modern on the North American continent.

Nowhere else in the world can private automobile insurance be purchased at rates so low as those furnished by Saskatchewan's socially-owned insurance company. Legislation has decreed it compulsory for all motor vehicles to be covered by this insurance which sells to the private motorist at $4·50 to $6, and protects both him and anyone his car may strike. Saskatchewan also owns its own telephone and power system. In all, these crown corporations netted over $5,000,000 in the 21-month period April 1, 1946 to December 31, 1947, the profits being employed to settle the original investment and aid Saskatchewan's record-breaking social welfare, health and education programme.

Finance

The provincial budget for 1948-49 comprises estimated revenues of $52,238,445 and expenditures of $52,221,154. Largest single budget item is social welfare: $11,157,472, largely accountable by Saskatchewan's high old age pension payments, advances in mothers' allowances, etc. From the end of the fiscal year in 1944 to December 31, 1947, Saskatchewan reduced its public debt by $68,508,646 or 32 per cent, a reduction unparalleled in the history of any Canadian province since Confederation. Today the net debt stands at $145,744,565. Saskatchewan has the second highest sinking fund in Canada: $39,000,000, an increase of 50 per cent since 1944, and a bank balance of $10,000,000—up $2,000,000 since 1944. The entire financial programme of Saskatchewan's government reflects a " pay-as-you-go " policy and a general reluctance to augment its public debt.

Population

The population of Saskatchewan, according to 1946 figures, is 832,688, comprising about 6·77 per cent of the total for the Dominion. There are about 140,000 farm homes in the province.

Education

During the 1947-48 term there were 141,125 pupils enrolled in elementary schools and 36,450 in high schools.

In 1945 the 5,000 school districts of the province were consolidated into 45 larger school units for administrative purposes, with 15 additional units still to be organised. Free textbooks are now provided in grades one to eight and a new high school curriculum, specially designed for use in Saskatchewan was inaugurated in the fall of 1946. A new medical college to cost one million dollars is being erected at the University of Saskatchewan in Saskatoon.

Prominent Legislation

As a progressive community Saskatchewan has few peers. An essentially young country built by an equally young people it has never allowed precedent or convention to hamper progress. Its citizens spend more per capita on social welfare and public health than any other Canadian province, more on education per capita than any other province except Ontario. Its teachers are guaranteed the highest minimum wage in the Dominion and its workers have by law the lowest work week (44 hours) and highest minimum wage. Saskatchewan was the first to provide free diagnostic care and treatment for cancer patients and first to establish a province-wide, low cost hospital insurance scheme. Its citizens are the only ones in Canada to adopt a Bill of Rights providing freedom of religion, speech, education and guaranteeing against discrimination on grounds of race, colour, creed or national origins. The voting franchise in Saskatchewan has been extended to persons 18 years of age. No other civil service in Canada has bestowed more rights on its employees than that of Saskatchewan. This province was the first and only one to provide a comprehensive housing development during the postwar era and the first and only province to open a full time government department devoted to the promotion of coöperative business. The development and extension of all present legislation and creation of further progressive moves are included in Saskatchewan's plans for the future.

THE NORTHWEST TERRITORIES

THE Northwest Territories of Canada embrace the mainland portion of the Dominion lying north of the 60th parallel of latitude between Hudson Bay on the east and Yukon Territory on the west, together with the islands lying between the mainland of Canada and the North Pole, including those in Hudson Bay, James Bay and Hudson Strait. The total area of the Northwest Territories is 1,304,903 square miles, or more than one-third of the total area of the Dominion. According to the 1941 census, the population of the Territories was 12,028, including 2,284 whites, 4,334 Indians, 5,404 Eskimo, and 6 others.

For purposes of organisation and administration, the Northwest Territories are divided into three districts: Mackenzie (527,490 square miles), Keewatin (228,160 miles), and Franklin (549,253 square miles).

Until 1920, the fur trade was the only industry of any significance in the Territories. Oil was struck that year below Fort Norman on Mackenzie River, and the attention of the prospectors was directed northward. Discovery of radium-bearing and silver ores on the shores of Great Bear Lake in 1930 created world-wide interest, which was intensified by gold and silver finds near the mouth of Yellowknife River on the northern shores of Great Slave

Lake in 1934. Geological surveys carried on by the Department of Mines and Resources have since disclosed the presence of many other minerals in the region.

Government and Administration

The Northwest Territories Act (Chapter 142, R.S.C. 1927) provides for a Territorial Government composed of the Commissioner of the Northwest Territories, Hugh L. Keenleyside, the Deputy Commissioner, Roy A. Gibson, and five Members in Council, Louis de la C. Audette, Harold B. Godwin, Donald M. MacKay, John G. McNiven and Stuart T. Wood. James G. Wright is Secretary of the Council. The Commissioner in Council has power to make ordinances for the Government of the Territories under instructions from the Governor General in Council or the Minister of Mines and Resources, respecting direct taxation within the Territories in order to raise revenues, the establishment and tenure of territorial offices, the appointment and payment of officials, the maintenance of prisons and municipal institutions, the issue of licences, solemnisation of marriages, property and civil rights, the administration of justice, and generally all matters of a local or private nature in the Territories. The seat of Government is at Ottawa.

Law and Order

The enforcement of law and order is the responsibility of the Royal Canadian Mounted Police and detachments are established at strategic points throughout the Territories.

Medical Services

In the interest of public welfare, thirteen hospitals are operated at present in the Northwest Territories. Nine of these are maintained by missions of the Roman Catholic Church and the Church of England in Canada, two by mining companies at Yellowknife and Port Radium, and one by private enterprise at Norman Wells. A new modern hospital is operated at Yellowknife by the Canadian Red Cross Society. The mission hospitals are situated at Fort Smith, Fort Resolution, Hay River (Sick Bay), Fort Simpson, Aklavik (2), Rae, Chesterfield and Pangnirtung.

The health of Indians and Eskimos is supervised by the Department of National Health and Welfare.

Education

The education of white, native, and half-breed children in the Mackenzie District is carried on at day and residential schools operated by the missions with financial assistance from the Government and at public schools located at Fort Smith and Yellowknife. In addition to the subjects usually taught in primary schools, special attention is given to manual and domestic training and to hygiene.

The new School of Opportunity at Yellowknife provides secondary education for students in the Northwest Territories, and additional facilities for advanced instruction are made available by means of correspondence courses which have been arranged by educational authorities in Alberta and in Ontario. In addition, scholarships are offered by the Northwest Territories Administration to assist in financing worthy students who wish to pursue advanced studies at universities outside the Territories.

Eskimo children of the Eastern Arctic have mastered the sytem of syllabic writing (geometric characters similar to a type of shorthand) which most of them now read and write efficiently. Educational facilities in the Eastern Arctic are limited to instruction undertaken by the missionaries.

General Welfare

In the event of a scarcity of game and fur-bearing animals to the extent that the native economy is disturbed, the Government issues supplies to the natives through the medical officers, Royal Canadian Mounted Police, traders, or missionaries in that order of authority. However, when game is available, hunters are not relieved of the obligation of providing for their families. The administration of Family Allowances in the Northwest Territories has also contributed greatly to the welfare of the natives.

The establishment of the reindeer industry in the vicinity of the Mackenzie River Delta, and the provision of native game preserves, are among the measures instituted by the Northwest Territories Administration as a means of sustaining the native economy.

Transportation

The Mackenzie District and Western Arctic are served by water and aerial transportation. Truck and tractor roads constructed near settlements and between strategic points facilitate transportation of freight and supplies. The completion of the all-weather highway from Grimshaw, Alberta, to Hay River Settlement on Great Slave Lake will greatly assist the movement of materials to and from Yellowknife.

Three water transportation companies operate freight boats and barges on the Mackenzie River system, viz., the Mackenzie River Transport (Hudson's Bay Company), Northern Transportation Company Limited, and Yellowknife Transportation Company Limited. Passenger accommodation is not available at the present time. Most of the boats are equipped with radio and are in regular communication with the radio stations en route.

Aerial transportation since the winter of 1920-21, when it was originated by the Imperial Oil, Limited, has contributed greatly to the development and extensive exploration of the Mackenzie District. Pontoon and ski-equipped aeroplanes are used extensively. More recently a number of large landing fields has been constructed which permits the operation of wheel-equipped aircraft throughout the year. These fields are situated at Fort Smith, Fort Resolution, Hay River, Yellowknife, Fort Providence, Fort Simpson, Wrigley, and Norman Wells.

Regular mail, passenger and express services are maintained throughout the year to many points in the Mackenzie District. Canadian Pacific Air Lines provide a daily service from Edmonton to Yellowknife, and service is also available to Fort Simpson, Norman Wells, Fort Simpson, and Port Radium on Great Bear Lake. There is also a limited service from Norman Wells to Aklavik which serves Fort Good Hope, Arctic Red River and Fort McPherson.

The settlements in the Eastern Arctic are visited by patrol vessels under charter to the Dominion Government on the anual Eastern Arctic Patrol of medical centres, Royal Canadian Mounted Police detachments, post offices, radio stations, trading posts and missions in the region. For many years, the annual patrol was carried out by R.M.S. "Nascopie," but this vessel was wrecked off Cape Dorset in July, 1947. In 1948, the patrol was carried out by a number of small vessels under charter to the Government. A new vessel, especially designed for work in northern waters, is under construction at the present time.

The Mackenzie District receives its mail exclusively by air. Postage rates have been kept low, and letters, if not overweight, are conveyed by air at regular letter postage rates. Parcels are subject to a higher rate.

Mail in the Eastern Arctic is carried by the vessels employed in the Eastern Arctic Patrol.

Excellent radio services have been maintained in the Northwest Territories since 1925. High-powered stations have been installed by the Departments of National Defence and Transport at strategic points and important settlements in the Mackenzie District and in the Eastern Arctic. In addition, nearly all settlements or centres, including trading posts, are now equipped with two-way private commercial radio stations.

For several years the Canadian Broadcasting Corporation has broadcast the "Northern Messenger" programme each Friday evening during the winter months. This service enables relatives and friends to send personal messages to residents of the Northwest Territories.

Climate

The Northwest Territories have two main climatic divisions. The northeastern region including the islands of the Arctic Archipelago has an Arctic climate, with summer temperatures ranging from 32°F. up to about 50°F. All winter temperatures are below freezing. The remaining areas of the Northwest Territories have cold winters but summer weather above 50°F.

Indians

Most of the 4,000 Indians in the Northwest Territories live in the Mackenzie River valley. The principal tribes are the Chipewyan, Beaver, Sekani, Slave, Yellowknife, Dogrib, Hare, Nahanni, and Kutchin. They are of Athapaskan linguistic stock, and with the exception of the Kutchin tribe their languages are mutually intelligble. The language of the Kutchin is distinct from the others, but obviously related to the Athapaskan.

Eskimo

The Canadian Eskimo population is approximately 7,400 of which 5,400 dwell in the Northwest Territories. The remaining 2,000 are in Northern Quebec. They are not "tribes" in the same sense as are the North American Indians, but travel and live in small groups consisting of two or more families under the leadership of some outstanding individual.

Since 1941 each Eskimo has been identified by a numbered disc supplied by the Department of Mines and Resources. These discs permit positive identification at all times, and as each Eskimo's number is recorded in the census record the Department now has a personal record of each Eskimo.

Eskimo are intelligent, quick to imitate or learn and possess a mechanical turn of mind which enables them to take advantage of mechanical and labour-saving devices, such as out-board and marine motors for their whaleboats. They hunt caribou in the autumn for their meat, and for the skins which are used for clothing. They hunt seal, walrus, and whale in the Arctic Ocean, using whaleboats or their native kayak.

Fur Trade

The trapping of fine furs, which had its beginning in the latter part of the 17th Century when Charles II granted a charter to the Hudson's Bay Company, is still the chief occupation of most of the native population.

Until 1939, the fur trade exceeded in value all other products in the Northwest Territories. Since then minerals have gained the lead. In the year ended June 30, 1947, a total of 488,039 pelts, valued at $1,658,754 was harvested in the Northwest Territories. In 1829, the Hudson's Bay Company bought out the Northwest Trading Company, which had developed a string of posts along the Mackenzie waterways. In 1935-36 it absorbed Revillon Freres Trading Company in the Eastern Arctic. This leaves the greater part of the fur trading in possession of the Hudson's Bay Company, although in the Mackenzie District a number of independent companies operate.

Native Game Preserves

A number of Native Game Preserves have been established in the Northwest Territories to assist in maintaining the basic industry of the native population. Trapping in these preserves is confined to Indians and Eskimo and to half-breeds living the life of natives, in addition to such white trappers as were already operating in the areas at the time they were set aside as preserves. A list of these preserves follows: The Yellowknife Preserve consisting of 70,000 square miles, the Slave River of 2,512 square miles, and the Peel River of 3,300 square miles were established on September 22, 1923. The Arctic Islands Preserve (land areas) of 772,302 square miles was set aside July 19, 1926, and the Mackenzie Mountain Preserve of 69,440 square miles was established May 3, 1938. In addition there is the Thelon Game Sanctuary of 15,000 square miles for the preservation of musk-ox, and the Wood Buffalo Park of 17,300 square miles, of which 3,625 square miles are in the Northwest Territories, was set aside for wood bison or buffalo. Just recently a restricted area of 14,000 square miles has been set aside in the delta of the Mackenzie River to provide protection for beaver.

As a further example of the Government's interest in augmenting the wild life resources on which the native population depend for subsistence, a herd of 2,370 semi-domesticated reindeer representing stock driven overland from northwestern Alaska, was delivered in 1935 to a reserved area in the Northwest Territories near the mouth of the Mackenzie River. At the round-up held in the summer of 1947, the main herd retained on the reserve comprised more than 4,200 deer. Two additional herds, offshoots of the main herd, are under native management near the mouth of the Anderson River east of the reserve. These were estimated to contain 2,000 deer in 1947.

The Mining Industry

While the production of minerals on a commercial basis in the Northwest Territories is a comparatively recent development, and not large compared to older mineral-producing areas of the Dominion, this situation is likely to be changed in the post-war period owing chiefly to the developments in the Yellowknife gold area.

According to the Dominion Bureau of Statistics, the value of gold, silver, and petroleum produced in the Northwest Territories to the end of 1947 total $20,114,087 as follows:—

Gold	$17,257,086
Silver	874,659
Petroleum ..	1,982,342
TOTAL ..	$20,114,087

Water-power Resources

Aerial surveys and ground studies render it possible to make a reasonably close estimate of the water-power resources of the Northwest Territories as a whole. Tentative estimates indicate a total of about 362,700 h.p. available under conditions of ordinary minimum flow with almost 772,000 h.p. available for six months of the year. Of this total only 12,700 h.p. has been developed.

A new hydro-electric development on the Snare River, about ninety miles northwest of Yellowknife, came into operation in October, 1948, and the power made available by this project will be of the greatest assistance in developing the mining industry in the Yellowknife area.

Agriculture

Climatic, geological and topographical conditions place the major part of the Northwest Territories outside the zone of possible agricultural operations. Small gardening operations produce most of the common table vegetables. Greenhouses and fertilisers assist considerably in vegetable production.

Wild Life

The more important wild animals in the Northwest Territories are: the barren ground caribou, stone caribou, and western woodland caribou; the moose, the mule deer, wood bison, white mountain sheep, Arctic wolf, Arctic fox, both white and blue; and such fur-bearing mammals as the beaver, muskrat, mink, marten, lynx, fisher, wolverine, weasel, skunk, and other types of foxes.

The black bear and polar bear are most common in the Territories.

Marine life plays an important part in the economy of the inhabitants of the Northwest Territories. Some of the more important mammals hunted in the coastal waters of the Western and Eastern Arctic are: the ringed seal (a haired seal), chief source of both food and clothing of the Eskimo; the bearded seal, which grows to a large size—some specimens 800 pounds—and is highly prized by the Eskimo; the Atlantic walrus, which is becoming scarce; the Pacific walrus, bowhead or greenland whales, white whales, and narwhal.

Fish

Except in Hudson Bay, fish of several varieties are abundant in many parts of the Northwest Territories. The chief varieties are: Arctic char or salmon, found in the Arctic in great numbers in both salt and fresh waters; whitefish, in almost every lake or stream; Arctic cod among the islands in the District of Franklin; tom cod, halibut or Greenland halibut in Eastern Arctic; inconnu, excellent as dog food; grayling or bluefish, and several different kinds of herring.

Recently, a commercial fishery has been operated with considerable success near Gros Cap on Great Slave Lake. In summer the fish are quick-frozen at the plant, and transported to railhead for shipment to outside centres. A portion of the winter catch is transported overland to railhead for similar distribution.

Forests

There is no forest industry in the usual sense of that term in the Northwest Territories, though in the Mackenzie District there are several areas of forest land which are of value chiefly as a source of building materials and fuel for use of the local population, and as a favour-environment for fur-bearing animals. The Eastern Arctic is practically devoid of forests.

Surveys, Maps, and Information

Topographical maps, aerial and ground geological surveys, and general information about the Northwest Territories may be obtained from the Department of Mines and Resources, Ottawa, Canada.

Bibliography

The following publications, issued by the Department of Mines and Resources, provide background information concerning the Northwest Territories:—

The Northwest Territories: Administration, Resources, Development.
Physical Geography of the Canadian Eastern Arctic.
Mineral Resources and Mining Activity in the Canadian Eastern Arctic.
Eskimo Population in the Canadian Eastern Arctic.
Economic Wildlife of Canada's Eastern Arctic—Caribou.
A Brief History of Exploration and Research in the Canadian Eastern Arctic.
The Conquest of the Northwest Passage by R.C.M.P. Schooner *St. Roch.*
Land Use Possibilities in Mackenzie District, N.W.T.
Water Transportation in the Canadian Northwest.
Fur Production in the Northwest Territories.
Weather and Climate of the Northwest Territories.
Exploration and Settlement of Mackenzie District, N.W.T.
The New North, by Charles Camsell.
Regulations Respecting Game in the Northwest Territories.

THE YUKON TERRITORY

FOR nearly half a century the Yukon Territory, located in the extreme northwest portion of the mainland of Canada, has been known chiefly as one of the great gold-producing centres of the world, and incidents relating to the famous Klondike gold rush of 1897-98 have provided material for writers and poets the world over. Recent developments in this northern part of Canada, particularly those associated with national defence and the improvement of facilities for transportation, are serving to increase interest in the economic and recreational possibilities of the region.

Although it has an area of 207,076 square miles, or 5·6 per cent of the total area of Canada, the population of the Yukon Territory, including whites, Indians and others, was only 4,914 according to the 1941 census.

Government

The Yukon was created a separate Territory in June, 1898, by Act of Parliament (The Yukon Act). By amending legislation (Chapter 215 Revised Statutes of Canada 1927) provision is made for a local government composed of a Chief Executive, styled Commissioner, also an Elective Legislative Council of three members with a three-year tenure of office. The Commissioner administers the

Government of the Territory under instructions from the Governor in Council or the Minister of Mines and Resources. The Commissioner in Council has power to make ordinances dealing with the imposition of local taxes, sale of liquor, preservation of game, establishment of territorial offices, maintenance of prisons and municipal institutions, issuing of licences, incorporation of companies, solemnisation of marriage, property and civil rights, administration of justice, and generally all matters of a local nature in the Territory.

Territorial Council

The Territory is divided into three electoral districts, namely, Dawson, Whitehorse, and Mayo. The Territorial Council elected in 1947 for a three-year term, is composed as follows:—

Dawson District ..	John R. Fraser, Dawson.
Mayo District ..	Ernest J. Corp, Keno Hill.
Whitehorse District	R. Gordon Lee.

The Yukon Territory also forms an electoral district for the Dominion Parliament. In 1947, the Electoral District of Yukon was enlarged by the addition of that part of the District of Mackenzie, Northwest Territories, lying west of the 109th meridian of west longitude. The new federal district is known as Yukon-Mackenzie River, and the present Member is Honourable George Black, K.C.

Administration

The Lands and Development Services Branch of the Department of Mines and Resources is responsible for business arising from the general administration of the Territory under the Yukon Act and Ordinances passed by the Territorial Council; for the disposal of lands under the Dominion Lands Act; for the administration of the Yukon Placer and Quartz Mining Acts; and for the collection of revenue. The Commissioner, Yukon Territory, is stationed in Dawson and represents all Dominion Departments having interests in Yukon Territory. He is also head of the territorial or local administration, ex-officio Mayor of Dawson, and Registrar of Land Titles for Yukon Territory. The Public Administrator is located in Dawson. There are three mining districts, Dawson, Mayo, and Whitehorse, with Mining Recorders in each. The Territorial Government maintains an assay office at Keno Hill, in the Mayo District.

The enforcement of law and order in Yukon Territory is the responsibility of the Royal Canadian Mounted Police. A sub-division has been established at Whitehorse, and detachments are stationed at Dawson, Mayo Landing, Old Crow, Fort Selkirk, Carcross, Kluane, Teslin, and Watson Lake.

The Superior Court of Record is the Territorial Court, over which a stipendiary magistrate presides. The Court has both civil and criminal jurisdiction and the Court of Appeal for British Columbia is the Court of Appeal for the Yukon Territory.

Physical Features

The Yukon is a region of hills and mountains separated by a network of large valleys. The main feature of the Territory is the great basin-like area called the Yukon Plateau which is drained by Yukon River and walled around on the north, east, and southwest by mountains. Two smaller basin-like areas drained by Porcupine and Peel Rivers lie to the north, and a third drained by the Liard River lies to the southeast. The mountain barriers around these basins include the St. Elias and Coast Mountains in the southwest and the Mackenzie Mountains on the east.

In the St. Elias Mountains in the southwest corner of the Yukon are to be found a number of high mountains, one of which, Mount Logan, 19,850 feet, is second only to Mt. McKinley, the highest mountain in North America. Others are Lucania, 17,150 feet; King, 17,130; Steele 16,439; Wood, 15,885; all of which are higher than the famed mountains of Switzerland, and offer a challenge to the mountain climbers of the world.

Climate

The climate of Yukon Territory is characterised by extremes in temperature and a very moderate precipitation. There is no more delightful climate than prevails from May to October. The continuous daylight during the period from the middle of May to the first week in August, although anticipated, is a source of delight and wonder to the visitor. While the winters are long and cold, the low temperatures are borne with less discomfort than in other parts of the North owing to the absence of high winds and the dryness of the atmosphere. Mean monthly winter temperatures range from zero to minus 21 degrees and summer monthly temperatures average 50 to 60 degrees.

Communication

Communication with the Yukon Territory from outside points is maintained with the aid of telegraph, telephone, radio and mail service.

Air Mail service is maintained daily except Sunday, the year round, between Vancouver and Whitehorse and between Edmonton and Whitehorse. These schedules include mail for Watson Lake. Dawson and Mayo Landing have year-round air mail service twice a week from Whitehorse. In winter, air mail service is maintained weekly between Whitehorse and Carmacks, and between Whitehorse and Fort Selkirk.

Ordinary mail service is maintained from Vancouver to Skagway, Alaska, by steamship service, and from Skagway to Whitehorse by rail.

Transportation

The Yukon Territory is served normally by water, railway, highway, and aerial transportation.

The Canadian Pacific Railway Company operates a steamship service the year round from Vancouver, B.C., to Skagway, Alaska, with occasional tourist service during the summer months by Canadian National Steamships.

Railway service is provided by The White Pass and Yukon Railway between Skagway and Whitehorse, the the head of navigation on the Yukon River system. In summer this service is daily, but is cut to twice weekly during the remainder of the year. Railway Express Agency maintains offices at Skagway, Carcross, Whitehorse, Dawson, and at Fairbanks, Alaska.

From May 15 to October 15, the season for navigation on the Yukon River system, the White Pass and Yukon Route operates steamboats on the Yukon River between Whitehorse and Dawson, requiring two days to make the river trip to Dawson, and four days to return upstream to Whitehorse. Steamer service is also occasionally provided from Dawson to points further down the Yukon in Alaska, connecting at Nenana with the Alaska Railway to Fairbanks, Anchorage, and Seward, Alaska.

All-weather roads radiating from Dawson and Mayo Landing connect with the neighbouring mining districts, and secondary roads connect Whitehorse with Carcross, Carmacks and Yukon Crossing. Most of these are suitable for automobiles and trucks, and heavily travelled sections are kept open during the winter.

Air transportation has brought the Yukon within a few hours flying time of cities in Western Canada and the northwestern United States. Daily passenger services are maintained between Vancouver and Whitehorse and Edmonton and Whitehorse. These services connect with Trans-Canada Air Lines. Whitehorse is a regular stop for Pan-American Airways flying from Seattle, Washington, to Fairbanks, Alaska.

The Alaska Highway

The completion of the Alaska Highway through southern Yukon has opened up regions of the Territory previously inaccessible to all but a few adventurous explorers, prospectors and trappers.

The maintenance of the Alaska Highway, together with access to airports along the Northwest Staging Route and flight strips bordering the Highway, is under the jurisdiction of the Department of National Defence (Canadian Army). Airports along the Northwest Staging Route are maintained by the Royal Canadian Air Force, and flight strips bordering the Highway are serviced by the Royal Canadian Engineers. The Northwest Communication System, comprising the telephone and telegraph system paralleling the Highway, is under the supervision of the Department of Transport and is operated by Canadian National Telegraphs.

In 1948, travel restrictions were removed and permits are no longer required to travel on the Alaska Highway. However, restrictions may be imposed from time to time because of food conditions or damage to bridges. Law and order along the Highway are maintained by the Royal Canadian Mounted Police.

Mining Development

Gold was reported in the Yukon by the Hudson's Bay Company in the 1850's, and prospecting began in 1872. In the early nineties, the Sixtymile placer field was located and by 1895 its annual production had reached a value of $250,000. Klondike placer creeks were discovered in 1896. Their amazing richness attracted miners from the other parts of Yukon. Thousands of would-be miners made their way to the Klondike and in the next ten years spread out over the whole Territory. It was during this period that nearly all the known placer creeks in Yukon were discovered and also the deposits of the Whitehorse copper belt, the Mayo silver-lead district, and the Carmacks coal basin. In addition, ores of gold, antimony, tungsten, zinc, arsenic, manganese and iron were found in lode deposits and tungsten, mercury, tin, platinum, and bismuth were found in placers.

According to the Dominion Bureau of Statistics, the value of gold, silver, and lead produced in Yukon Territory to the end of 1947 totalled $241,319,274, as follows:—

Gold	..	$215,484,179
Silver	..	21,288,935
Lead	..	4,546,160
TOTAL	..	$241,319,274

Waterpower

While no comprehensive examination of the waterpower possibilities of the Yukon Territory has been undertaken, reconnaissance investigations by the Dominion Water and Power Bureau of the Department of Mines and Resources indicate resources of quite substantial magnitude in the Whitehorse and Mayo Districts.

Agriculture

Although agriculture cannot be classed as one of the primary industries of the Yukon, field crops, including cereals, fodder, and vegetables are grown with considerable success.

Forests

The forests of the Yukon belong to the Boreal Forest Region of Canada which is characterised by combinations of a small number of species as well as by a relatively slow rate of growth. About the only good stands of merchantable spruce timber are found south of latitude 61°N., and east of the Lewes and Yukon Rivers, and the only area that might be able to furnish timber for outside sale is in the valley of the Liard River in the southeast corner of the Territory. The merchantable timber is for the most part spruce. Aspen poplar, balsam poplar and birch are common, but are used mostly for fuel, as is the lower grade spruce, and jackpine.

Wild Life

Among the important resources of the Yukon Territory is its wild life. Big game animals are represented by the Dall species of white mountain sheep, the Alaska moose, largest and darkest of the species, caribou, including the Osborn and Stone varieties, and bear of the grizzly, black and brown varieties. Fur bearers include beaver, ermine (weasel), Alaska mink, marten, wolverine, northwestern muskrat, lynx, otter, white Arctic fox, red, silver, cross and black varieties of fox.

Grouse, ptarmigan, wild geese, swans, ducks, and shore birds are most abundant among the game birds and waterfowl.

Among game fish, grayling, great lake trout, and whitefish, are common. Schools of fresh water herring are found in the lakes near Carcross and Tagish, and may be taken with nets. Other fish are the salmon, inconnu and great northern pike. Along the Arctic coast and in the streams the Arctic Char, allied to the Dolly Varden, is an important food fish.

Towns and Villages in Yukon

The Yukon offers many attractions to the visitor. It is a land of contrasts—and even of extremes—in climate, in physical characteristics, in wild-life and in human interest. Its romantic history, including the feverish days of the Klondike gold rush and the " Trail of '98," is recalled by visits to places now famous the world over. Its snow-capped mountains, beautiful lakes, and the majestic rivers which flow so smoothly to the sea, provide an ever-changing panorama that is interesting and delightful.

The principal settlements in Yukon Territory include the following:—Burwash Landing, at the north end of Kluane Lake about 180 miles west of Whitehorse; Carcross, on the Alaska Highway and accessible by the White Pass and Yukon Route; Carmacks, on the Lewes River 110 miles north of Whitehorse; Dawson, administrative centre of Yukon Territory, with schools, banks, churches, barracks for the Royal Canadian Mounted Police, and other public buildings; Fort Selkirk, at the confluence of Pelly and Yukon Rivers, 178 miles from Dawson; Mayo Landing, on the Stewart River, 180 miles from the Yukon River; Whitehorse, 42 miles north of Carcross, which has a first-class airport and is also the terminus of the White Pass and Yukon Railway at the head of navigation on the Yukon River.

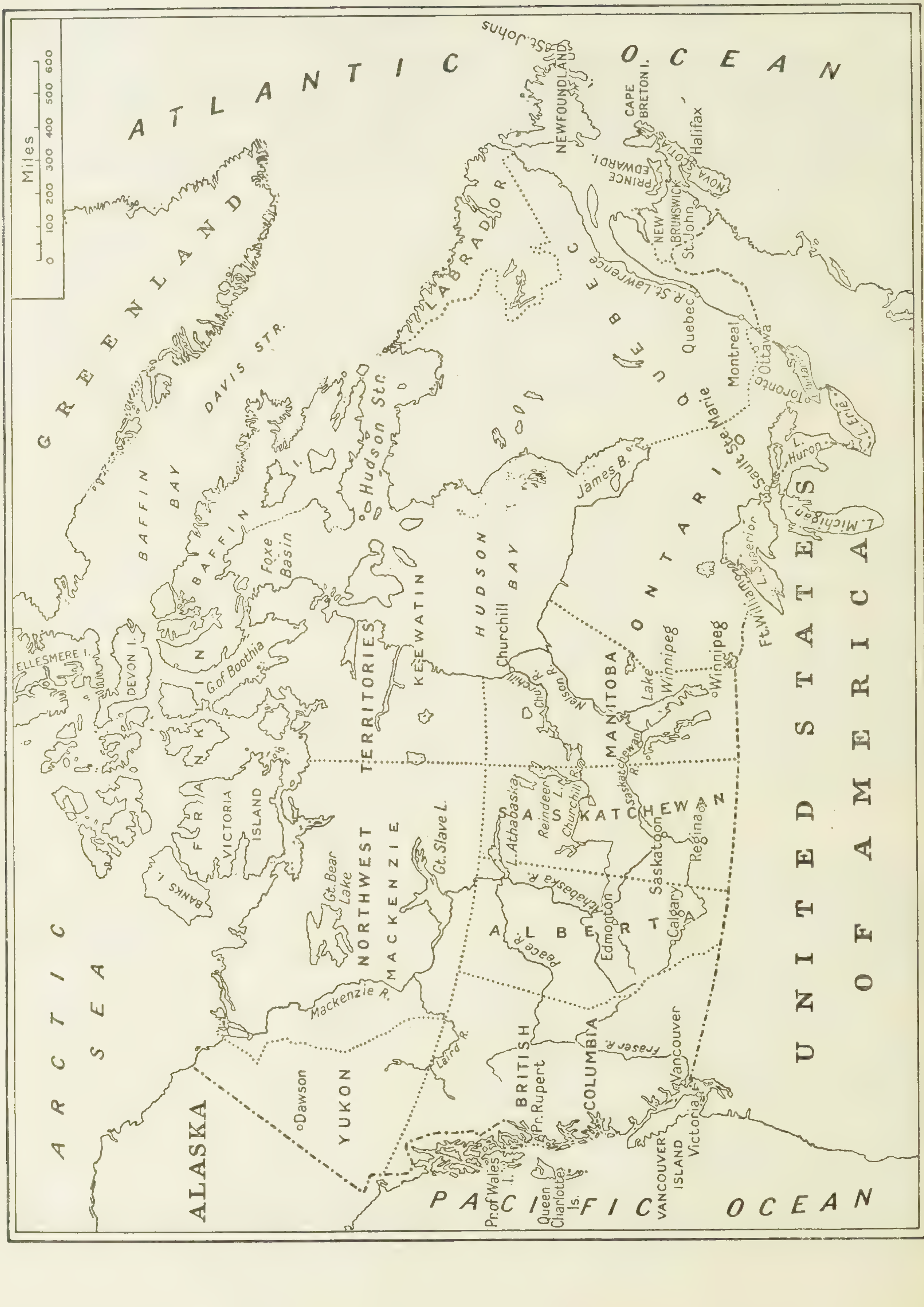
Maps, Mining Laws and Game Ordinances

Copies of topographical maps and geological maps, Yukon Mining Acts and Regulations, Game Ordinance and Fur Export Tax Ordinance of Yukon Territory, may be obtained from the Commissioner of Yukon Territory at Dawson, or from the Department of Mines and Resources, Ottawa, Canada.

Bibliography

The following departmental publications, copies of which may be obtained on application to the Department of Mines and Resources at Ottawa, provide background information on various aspects of life in Yukon Territory:—

Yukon Territory: History, Administration, Resources and Development;
Agriculture and Forests of the Yukon Territory;
Water transportation in the Canadian Northwest.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ATLANTIC OCEAN
GREENLAND
DAVIS STR.
BAFFIN BAY
BAFFIN I.
Foxe Basin
Hudson Str.
HUDSON BAY
James B.
LABRADOR
NEWFOUNDLAND
St. Johns
CAPE BRETON I.
PRINCE EDWARD I.
NOVA SCOTIA
Halifax
NEW BRUNSWICK
St. John
R. St. Lawrence
QUEBEC
Quebec
Montreal
Ottawa
Toronto
L. Ontario
L. Erie
L. Huron
L. Michigan
Sault Ste. Marie
L. Superior
Ft. William
ONTARIO
Winnipeg
Lake Winnipeg
MANITOBA
Churchill
Churchill R.
Nelson R.
Saskatchewan R.
SASKATCHEWAN
Reindeer L.
Saskatoon
Regina
L. Athabaska
Athabaska R.
ALBERTA
Edmonton
Calgary
Peace R.
BRITISH COLUMBIA
Fraser R.
Vancouver
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VANCOUVER ISLAND
Pr. Rupert
Queen Charlotte Is.
Pr. of Wales I.
Laird R.
YUKON
Dawson
ALASKA
Mackenzie R.
NORTHWEST TERRITORIES
MACKENZIE
KEEWATIN
FRANKLIN
Gt. Bear Lake
Gt. Slave L.
VICTORIA ISLAND
BANKS I.
ELLESMERE I.
DEVON I.
G. of Boothia
ARCTIC SEA
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UNITED STATES OF AMERICA

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CANADA AND NEWFOUNDLAND

NEWFOUNDLAND AND LABRADOR BACKGROUND

ALTHOUGH Newfoundland is Britain's oldest colony, its industrial development only began to expand at the very end of the last century when the trans-insular railway was completed in 1898.

This paradoxical situation was due to the fact that the codfishery and seal fishery alone were for long the only industries, and British west coast fishing merchants who financed the industry wished the island considered in the light of a "great ship moored near the fishing banks," and strictly enjoined their captains to bring back each autumn all men carried to Newfoundland each spring. Not until the beginning of the 19th century did settlement amount to any proportions. In 1832 agitation brought about establishment of representative government and in 1854 autonomy was granted under an elected Lower Chamber and appointed Upper Chamber. Up to that period the Island had been ruled by governors with absolute powers, appointed from England.

But even the creation of an autonomous administration by no means cleared the air. Under certain treaties made with France during the wars of the 18th and 19th centuries, French fishermen were given certain concurrent fishing rights on the coast and frequent attempts were made to prevent Newfoundland fishermen from establishing fishing premises at points on the whole west, northwest and southwest coasts where the French claimed these rights. This anomalous condition, which did much to delay development, ended in 1904 when the French surrendered their rights under a new treaty, maintaining only their territorial claim to the islands of St. Pierre and Miquelon just off the Newfoundland south coast.

During the last quarter of the 19th century copper mines in Notre Dame Bay were operated, chiefly by Cape Copper Company, and the ore was exported largely to Wales. Low grade of ore, coupled with what were claimed uneconomic methods and low prices of copper, with partial exhaustion of ore bodies, brought this industry to a close in the early 1900's.

The important iron ore development at Bell Island is described elsewhere.

Advent of the Northcliffe interests and the opening of the first paper mill at Grand Falls in 1909 gave impetus to railway traffic and development. When this was followed by the inauguration of a still larger paper mill at Corner Brook in 1925 and the opening of the Buchans lead-zinc mine a year or two later, the era of active development of the interior of the Island was well established.

World War Number Two gave emphasis to the strategic position of Newfoundland in the eyes of both Canadian and United States governments. Granted a ninety-nine years lease of certain areas for strategic bases, United States military and naval authorities undertook construction of elaborate port facilities, aerodromes and land establishments. The Canadian Government secured temporary rights to the use during the war of the Gander airport, built by the British Air Ministry in conjunction with Newfoundland in whose ownership it is vested, and the Canadians also established aerodromes at Goose Bay, Labrador and at Torbay near St. John's with military and naval bases at other points.

Latitudinally Newfoundland is in the same parallel as France, and Labrador that of England, but the Arctic current which sweeps down the coasts produces temperatures below those of European opposites. However, as this same Arctic current brings with it the bait creatures upon which the cod feeds, it is not unwelcome. Coastal temperatures in winter rarely drop below zero in Newfoundland and seldom exceed 80° in summer. Continental Labrador experiences both shorter summers and colder winters, the northern portion being in the Arctic zone.

The territory of Labrador, which comprises 120,000 square miles, was awarded to Newfoundland by a judgment of the Privy Council in March, 1927—the western boundary being the watershed of rivers running into the Atlantic Ocean and the southern boundary the 52nd parallel of latitude. For years Newfoundland fishermen had fished unobstructedly up and down the coast from Blanc Sablon to Cape Chidley, but the ownership of the hinterland came into dispute over a claim by the Newfoundland Government of their right to tax a lumber industry situate on one of the deep inlets, and the case was ultimately taken to the Privy Council by Canada and Newfoundland.

Very largely unexplored until the coming of the aeroplane, Labrador lies on the threshold of development. A pitwood cutting operation exists at Sandwich Bay. Labrador Exploration and Development Co., in which Hollingers are understood to have an interest under agreement with the Newfoundland Government, are prospecting a large territory where a huge iron ore deposit has been located and is being further investigated. A Montreal company has secured rights in Hamilton Inlet to cut annually a large output of pulpwood.

During the war, at a cost of over twenty-five million dollars, the Canadian Government built a modern airport at Goose Bay, at the bottom of Hamilton Inlet, for military purposes and have had this airport leased to them by the Newfoundland Government for a term of 99 years for military purposes. Canada will operate it as a commercial aerodrome.

Fishing is chiefly for cod, employing about 4,000 men and 250 vessels from Newfoundland. The resident population of Labrador is slightly over five thousand, partly white and partly native, most of whom are fishermen. In 1943 the Newfoundland Government took over the Hudson's Bay Company's post in Labrador and are attempting to assist the native Esquimaux with fishing equipment and instruction. There are also seal, salmon and herring fisheries conducted along the coast, the latter two largely by Newfoundland interests.

One of the grandest spectacles in the world is provided by the Grand Falls on the Hamilton River, a recent power survey of which indicates that the minimum hydro-electric energy available is 1,250,000 h.p. The Hamilton River above the Grand Falls, within a distance of 5 miles, drops 200 feet in a series of rapids and then, with a roar, audible

20 miles away, makes a final plunge of 302 feet into Bodwoin Canyon.

As almost virgin country, Labrador offers a wide field for exploration and development but the limited financial resources of the Island have been an obstacle to development by Newfoundland.

Fishing Industry

Newfoundland's fisheries comprise chiefly those of cod, salmon, herring, halibut, turbot and lobster with the bait fish, caplin and squid. Cod occupies the predominant place in the Island's fishing industry.

Codfishery methods are classified into three groups—inshore, deep sea, and Labrador fisheries. The inshore fishery occupies the greater proportion of the population. It is conducted by shore based fishermen using small fishing boats, usually powered with 3 to 4 H.P. motors, and with trap skiffs of 25 to 28 feet in length, equipped with 8 to 10 H.P. motors. The small boats are used by the hook-and-line fishermen who may fish up to six miles offshore using also trawl lines or " bultows," and codnets later in the season. The trap boats are used to operate codtraps—square shaped nets capable of containing up to sixty thousand pounds or more at a haul. Decked boats called " skiffs " are also used on the South Coast for the winter fishery. Codtraps are usually set on shoals near headlands and account for large takes of fish when the cod is " running " though such hauls depend entirely upon the early summer movements of cod and are usually discontinued by midsummer.

Hook-and-line fishermen use caplin, herring and squid for bait, or when the fish is in schools or bait scarce, a jigger is employed. This consists of two large hooks cast in a leaden mould shaped like a caplin and is pulled up in a series of short jerks. Bultows are of the same nature, though usually not so extensive in character, as those used by deep sea fishermen on the banks.

Deep sea fishing is done exclusively from South Coast ports by schooners up to 150 tons which fish on the Banks, though some smaller vessels fish on banks not so far off the coast, particularly in Placentia Bay. The " Banks " are great shoals lying far off the southeast coast of Newfoundland and Nova Scotia.

The Labrador fishery is operated by two groups—those called " stationers," who have their fishing " rooms " based on shore and are really inshore fishermen, and schooners which carry their crews and gear with them, moving from point to point if the indications appear to warrant it, and splitting and salting their codfish on board. This quality, known to the trade as Labrador Fish, is frequently sold undried as salt bulk. Fish caught on the Banks, while split and salted on board, is brought home to ports to be cured. With the development of refrigerating filleting plants several bank fishermen have been icing down their fish, bringing it to port and selling it fresh to filleting plants. In 1947 14,976 cases of packed codfish were put out by 7 factories.

The salmon fishery begins in May on the Avalon coast and moves northward, culminating in the Labrador salmon fishery in July. Previous to the war several million pounds of frozen salmon were exported annually to the United Kingdom, but export to this market ceased when salmon was placed on the luxury embargo list. About a million pounds go to Canada and the United States annually in fresh iced or frozen state. A proportion is canned. while about 250,000 lbs. is salted and sold chiefly to the West Indies. In 1946, 6,652½ cases were packed by the 206 factories packing salmon. This fishery is of brief duration while salmon are running towards rivers to spawn. A few salmon are caught in November and December but are disposed of fresh, locally.

The herring fishery is conducted entirely from the shore, depending upon the run of herring into bays where they remain until they spawn in the Spring. Much of the herring is salted and barrelled for export.

Cured herring in various forms approximates 60,000 barrels per annum.

Lobsters are fished chiefly on the south and west coasts and in Notre Dame Bay. Most of the lobsters caught on the west and south coasts are exported alive. The Notre Dame Bay catch is canned.

220 factories packing lobster are in operation, the total pack in 1946 being 6,351½ cases.

An important by-product of the codfishery is that of cod liver oil. About 287,915 gallons of refined, medicinal oil and 687,330 gallons of common, or sun-reduced cod oil, were produced in 1943-44.

FRESH FISH PROCESSING PLANTS THEIR NATURE AND LOCATION

Location	*Nature*
St. John's	Filleting and freezing, cold storage and smoke house.
Harbour Grace	Filleting and freezing, cold storage and smoke house.
Bonavista	Filleting and freezing, cold storage.
Englee	Filleting and freezing, cold storage.
Port aux Basques	Filleting and freezing, cold storage.
Burnt Island	Filleting and freezing, cold storage.
Burgeo	Filleting and freezing, cold storage.
Ramea	Filleting and freezing, cold storage.
St. Anthony	Filleting and freezing, cold storage.
Burin	Filleting and freezing, cold storage.
Grand Bay	Filleting.
Rose Blanche	Filleting.
Channel	Filleting.
Petites	Filleting.
Botwood	Smokehouse.
Curling	Smokehouse
Curling East	Smokehouse
Lark Harbour	Smokehouse.
Petries	Smokehouse.
Milton	Smokehouse.
Norris Point	Smokehouse.
Lewisporte	Smokehouse.

GOVERNMENT BAIT DEPOTS IN OPERATION

Bait Depot at	*Sharp Freezing Capacity*	*Approximate Storage Capacity*
	lbs.	*lbs.*
Port aux Basques	12,500	350,000
Rose Blanche	10,000	250,000
Recontre West	10,000	300,000
Recontre East	30,000	850,000
Hermitage	10,000	150,000
Grand Bank	10,000	250,000
Lamaline (Holding Plant)	—	40,000
Oderin (Holding Plant)	—	50,000

GOVERNMENT BAIT DEPOTS—*continued*

Bait Depot at	*Sharp Freezing Capacity*	*Approximate Storage Capacity*
Marasheen	—	50,000
Long Harbour	10,000	300,000
St. Mary's	5,000	200,000
Ferryland	10,000	180,000
Bonavista	20,000	300,000
Greenspond	10,000	200,000
Joe Batts Arm	5,000	100,000
Change Islands (Holding Plant) ..	—	50,000
Twillingate	10,000	150,000
Conche	10,000	200,000
Quirpon	5,000	100,000

Whaling

Whale fishing has been conducted during the past forty years, with a lapse during the post-war period, by the Norwegian method, using harpoon-firing cannon and shore stations on the northeast and south coast. Owing to the low price obtainable for oil during the 1920's operations ceased for some years but were resumed a few years ago on a somewhat smaller scale.

Two whaling plants operated in 1946, one at Williamsport, White Bay, and the other at Hawkes Harbour, Labrador. Four whale catching ships operated out of Hawkes Harbour and two out of Williamsport. The total number of whales taken was 529, or an increase of 136 over the previous year. The greater portion of the oil produced was exported to Canada while the entire production of guano found sale in the United States.

Comparative figures of exports and export values of whale products for the years 1945 and 1946 are as follows:—

	1945		1946	
	Quantity	*Export Value Dollars*	*Quantity*	*Export Value Dollars*
Oil (gals.) ..	299,877	213,010	677,864	809,857
Guano (lbs.) ..	2,442,760	66,511	3,960,646	140,893

Sealing

Newfoundland's seal hunt began as a commercial undertaking in 1792 (Chafe's Sealing Book) when the first ship, of thirty tons, was built for this purpose in the island. During the first part of the 19th century up to 152 sailing-vessels undertook this annual seal hunt in March and April each season. In 1862 two steamers from Dundee, Scotland, provided the first instance of steam in this industry and thereafter use of steam gradually increased so that by the end of the century the sailing ship had been completely ousted from prosecution of the seal hunt.

The Newfoundland hair seal is sought for its skin and the pelt of two-inch thick fat, from which oil is made. These seals are Arctic species which come as far south as the Banks of Newfoundland. They bear their young early in March on the ice-floes as they drift southward. Some two months later they again migrate northward to Arctic waters.

The industry is a hazardous one since men must sometimes leave their ship to travel several miles over the floes in search of seals. Many cases have been recorded of men caught in sudden blizzards and frozen to death on the floes.

In the heyday of the industry, the first decade of this century, the number of seals' pelts taken varied from 100,000 to 350,000 in a season. During the War years (1939-45) the seal fishery was practically abandoned. In 1947, 97,535 seals were caught; 2 steamers and 15 auxiliary vessels with 722 men were engaged in the industry.

The seal fishery in 1948 was prosecuted by three steamers and 13 auxiliary vessels. The total number of seal pelts brought to port was 120,061.

Forest Products

Very much of Newfoundland's surface (estimated as much as one third) is covered with innumerable lakes and rivers, while there are large areas of marsh land. The best timberlands are situated near the shores of lakes or rivers.

Both paper-making companies estimate that, barring the improbability of serious forest destruction by fire, there is sufficient wood available for normal operation in perpetuity, as areas may be cut over again in rotation.

FOREST PRODUCTS

LUMBER

Year	*F.B.M.*
1945	51,183,159
1946	63,076,114
1947	60,000,000

OTHER FORESTRY PRODUCTS

Year	NEWSPRINT		PULP-WOOD		PITPROPS	
	Tons	*$ Value*	*Cords*	*$ Value*	*Cords*	*$ Value*
1945	317,489	15,874,000	None	—	20,172	400,964
1946	360,282	19,500,000	None	—	23,351	461,769
1947	397,008	26,678,000	79,304	2,171,371	19,147	434,859

Between the years 1890 and 1911 a considerable export trade in sawn lumber from Newfoundland existed. Large sawmills, operated at Botwood, Benton, Millertown, Glenwood, Gander Bay, produced deals and other sawn lumber which was exported to United Kingdom and South American markets.

Following the coming into operation of the first paper mill at Grand Falls the export trade in sawn lumber practically ceased, partly due to the acquisition of large timber areas by the Grand Falls interests.

During the period 1890 to 1911 the maximum annual export of sawn lumber was 22 million feet, board measure, and a minimum of one million.

945 saw mills are in operation producing from 10,000 B.M.F. to 1,000,000 B.M.F. The total output in 1946 was 63,076,114 B.M.F.

Wooden Shipbuilding

Newfoundlanders have long built their own vessels. These have usually ranged from 30 to 100 tons, but during the closing years of World War Number One several vessels of 300 tons and upwards were built for the Atlantic trade, carrying salted cod to Europe. Most of these ended their careers as a result of enemy action.

Hundreds of sailing vessels have been built for the fishery particularly for the long trip to Labrador each summer. In late years a number of powered craft have been built and are operating successfully.

Early in the last war Steers Limited undertook construction of six wooden mine-sweepers of 200 tons each for the Admiralty. In addition to this two freight-carrying motorships of 300 tons were built by the same firm.

In 1942 the Government began the establishment of a modern, well equipped shipyard at Clarenville laying down a programme for ten wooden, powered freighters of 300 tons each, of ten knot speed. All these have now gone into service in the carrying trade, some operating in the service to the West Indies carrying salt codfish and returning with molasses, rum or other West Indian products.

Besides the ten ships built at the Clarenville shipyard, and those built by Steers Limited, considerable other building has been undertaken. Following are figures for shipbuilding in 1946 and 1947:—

Year	*No. of vessels*	*Tonnage*
1946-47	33	1799
1947-48	56	2663

Fur Production

There are fur farms at:—

Port aux Basques (Mink); St. George's (Mink and Fox); Sandy Point (Mink and Fox); Corner Brook (Mink); Springdale (Mink and Fox (25 Farms)); Nippers Harbour (Mink (25 Farms)); Beaumont (Mink); Grand Falls (Mink); Fogo (Mink and Fox); Lewisporte (Mink); Clarenville (Mink); St. Anthony (Mink); Coachman's Cove (Mink); Bonavista (Mink); St. John's (Mink and Fox); Petty Harbour (Mink); Murray's Pond (near Portugal Cove) (Mink and Fox); Torbay (Mink); Catalina (Mink).

Of wild fur bearers the beaver, which is under the special care of the Chief Game Warden, shows remarkable signs of increase. There are reserves at Random Island, Trinity Bay and two other reserves. Survey shows a considerable spread of animals from these reserves. Between 1935 and 1944 about one thousand beaver were transferred from reserves to selected points.

All fur buyers or exporters must secure a "Fur Exporter's License" before they may export any skin or pelt (save sealskins) from Newfoundland or Labrador. A fee of $25·00 is charged but non-residents may be required to pay a fee of $100. Returns must also be made in this case at the expiry of the license. Such license is valid until June 30 next following the date of issue.

Copy of the Game Laws may be obtained from the Department of Natural Resources, St. John's.

Minerals

In 1934 the Government set up the first fully organised geological department. The new set-up has two objectives: (1) continuation of the geological survey begun in 1864 by Alexander Murray and continued by James P. Howley; and (2) investigation of known existing mineral deposits to determine their potential economic value, and to study areas likely to contain minerals, both metallic and non-metallic.

The mineral deposits investigated were: gold, silver, zinc, copper, iron, chromite, manganese, antimony, lead, molybdenite, nickel, and the non-metallics included coal, petroleum, marble, limestone, sulphur, gypsum, fluorspar, cement rock, talc, pyrophyllite, strontium, graphite, asbestos, barytes, slate, and brick clay.

Subsequent investigations have shown insufficient quantities of some of these to be considered as potential possibilities but others are indicated to be commercially potential if factors of marketing and financing are favourable. There are, of course, apart from Bell-Island iron, Buchans lead and zinc, St. Lawrence fluorspar, and West Coast limestone.

There are 6 mines; one pyrophyllite, one iron ore, one limestone, one lead, zinc and copper and two fluorspar.

Mineral Production 1947	*Tons*	*Value* ($)
Pyrophyllite	242	6,084·25
Iron ore	1,443,410	5,917,981·00
Limestone	312,153	466,424·16
Lead Concentrates	34,216	5,296,772·86
Zinc Concentrates	70,403	2,028,658·82
Copper Concentrates	16,137	1,596,831·95
Gravity Concentrates	167	95,978·13
Fluorspar	25,743	297,134·00
Grinding pebbles	267	4,770·00
	1,902,738	15,710,635·17

Bell Island Mines

Mining operations at Bell Island, Conception Bay, Newfoundland, began in the last decade of last century. The first cargo of iron ore, amounting to 2,600 tons, left Wabana on Christmas Day, 1895, for Halifax. Since then, up to the end of 1943, a total of 40,313,464 tons of iron ore had been exported.

The bulk of this had gone to the smelters at Sydney, Nova Scotia.

The first mining at Bell Island was conducted by Dominion Iron and Steel Company. Later Nova Scotia Steel and Coal Company also drove levels and conducted mining operations on the island. The two companies were incorporated in British Empire Steel Corporation which later passed into the hands of a receivership and present mining on the island is done by Dominion Steel and Coal Corporation.

The mine levels run far out under the sea on the west side of the island. Ore is hoisted to the pithead and moved across the island to the east side where the loading piers are, by cable cars. Ships moor in deep water close to the shores and the ore is loaded by gravity from the cliff tops. During the lulls in shipping, ore is diverted to the stockpiles.

Power is almost entirely provided by electricity transmitted by two submarine cables (laid under the three mile strait which separates the island from the eastern shores of the bay) from the generating plants of Newfoundland Light and Power Company at Petty Harbour and Pierre's Brook.

Bell Island iron ore is a sedimentary deposit of haematite and is located under the waters of the Bay. The estimated tonnage is given at 3,500,000,000 tons. At the peak of employment in 1947 1,960 men were employed. Almost the entire output is exported to Canada and the United Kingdom.

Buchans.—Buchans mine is located 5 miles north of Red Indian Lake in the district of Grand Falls and the ore body consists of, in the main, copper, lead, zinc with some gold and silver. A concentrating plant with a capacity of 1,500 tons per day is operated on the property and concentrates are hauled to Botwood whence they are exported. The average number of men employed is some 745 monthly. The output goes to Belgium, the United Kingdom and France.

St. Lawrence, Placentia Bay.—The operations in this section are in fluorspar and it is the second largest known field in the world. The mineral is used by the Steel industry as a flux for basic open hearth steel; In the aluminium industry as a substitute for Greenland cryolite and in the chemical industry as a basic ingredient of hydrofluoric acid. The mineral is exported to the United States and to Canada. Two separate Companies are operating and the average employment is 290 a month.

Aguathuna, Port Au Port.—The operation here is a limestone quarry. Some 400,000 tons are used as a flux for smelting Bell Island ores at Sydney, Canada, to which port the total product of the quarry is exported. The average number of men employed monthly is 150.

Cobbs Arm, New World Island, Notre Dame Bay.—Here is a limestone quarry. The product is used by the Anglo Newfoundland Development Co., Ltd., for its newsprint mill at Grand Falls and for agricultural and commercial purposes.

Brick.—There are two brick yards in operation in Trinity Bay, one at George's Brook and the other at Snook's Harbour on Random Island, each of the operations turning out 600,000 brick a year.

Present plans of the Geological Survey call for preliminary geological work on the coast of Labrador, an investigation of the possibility of producing salt locally, a continuation of the general geological mapping of the island and investigation of various deposits of possible economic value. Diamond drilling of mining prospects and rental of diamond drills to exploration interests at costs will continue to be a part of the policy of the Geological Survey.

Exploration has demonstrated the existence of very large high grade deposits of iron ore in Labrador.

Water Power

Governmental Regulations.—To acquire water-power rights the Government requires notice in Royal Gazette and one other paper for one month before filing application with Department of Natural Resources. For small powers a 9-year lease can be secured at an annual rental of 25c. per horsepower on an undertaking that developments will be put in hand in three years. Water-power privileges on larger streams may be acquired by special charter.

Existing Hydro-Electric Plants are at:—Junction Brook, Deer Lake, which produces an actual 15,000 h.p., with a potential of 47,500 h.p. additional. Grand Falls, Exploits River, with a total developed h.p. of 70,500 with a potential of 70,000 h.p. additional. Petty Hr., St. John's West, with a developed h.p. of 7,000. Pierre's Brook, Ferryland, with a developed h.p. of 5,500. Topsail River, Conception Bay, with a developed h.p. of 1,500. Seal Cove, Conception Bay, with a developed h.p. of 4,500. Victoria, Carbonear, Conception Bay, with a developed h.p. of 1,000. Heart's Content, Trinity Bay, with a developed h.p. of 2,000. Lawn, Placentia Bay, with a developed h.p. of 500. Little St. Lawrence, Placentia Bay, with a developed h.p. of 1,500. Flat Bay Brook, Bay St. George, with a developed h.p. of 3,750.

Pulp and Paper Industry

Grand Falls.—The Anglo-Newfoundland Development Co., Ltd., is established at Grand Falls on the Exploits River about 10 miles from tide water. The Company owns and operates its own railway from Grand Falls to Botwood—the shipping port—by way of Bishop's Falls at the mouth of the Exploits River, a total distance of 22 miles, with connection at Bishop's Falls with the Newfoundland railway system.

The mill at Grand Falls produces newsprint in rolls, dry baled groundwood pulp, dry baled sulphite pulp, wet groundwood, and miscellaneous wrappers and specialties. The mill at Bishop's Falls produces only wood pulp, which is pumped to the Grand Falls mill by a pipeline.

The exports of this Company in 1947 were:—

Product	*Tons*	*Value Dollars*
Newsprint	192,728	15,488,309·42
Groundwood printing paper	748·67	74,457·78
Sulphite wood pulp	11,142·19	1,260,603·79
Miscellaneous	7,586·58	640,960·44

Power is developed both at Grand Falls and Bishop's Falls, the total in use being 70,500 h.p. but a potential of some 70,000 additional h.p. is available.

Large paper storage sheds exist at Grand Falls and Botwood. The shipping season at Botwood is usually from early in May till late December. During the winter months Grand Falls products are forwarded to St. John's over Newfoundland Railway for shipment abroad.

Logging areas total 7,422 square miles. Wood—mostly black spruce and balsam fir, with a small quantity of juniper (larch and pine).

Corner Brook.—Bowaters Newfoundland Pulp and Paper Mills is established at Corner Brook, Bay of Islands and is on the main line of the railway. The Company has large storage warehouses for its products and a wharf frontage of nearly 3,000 feet.

The mill produces newsprint in rolls, dry baled groundwood pulp, dry baled sulphite pulp, wet ground-wood, and miscellaneous and specialties.

The power for the mills is supplied by the paper company's own hydro-electric plant at Deer Lake, about 32 miles east of the mills, which is transmitted to Corner Brook on two lines of steel towers. The original installed capacity of the power house was approximately 100,000 h.p. which in 1929 was increased by 50 per cent to approximately 150,000 h.p.

During the winter months Corner Brook products are forwarded to Port aux Basques for shipment abroad.

Logging areas total 11,006 square miles. Wood—mostly black spruce and balsam fir, with a small quantity of juniper (larch) and pine.

The exports of this Company in 1947 were:—

Product	*Tons*	*Value Dollars*
Newsprint	204,279·48	11,189,797·70
Pulp	474·55	26,100·36
Sulphite wood pulp	23,395·68	1,318,104·69
Unbleached sulphite	4,106·58	205,533·98
Groundwood printing paper	105·41	5,797·44
Miscellaneous	3,071·74	161,449·85

In and about the operations of both Corner Brook and Grand Falls mills the average monthly employment in the woods in 1947 was 9,429 and in the mills 4,577. The total amount paid to woods operators was $12,185,554·15 and to operators in the mills $11,865,743·41.

Agriculture

The soil survey is now a permanent part of the policy of the Agriculture Division and the work of classifying and mapping new agricultural lands will be proceeded with until all suitable areas have been classified. During the past few years this work has been concentrated in the Upper Humber area in contemplation of the settlement of ex-Servicemen on the land.

The volume and value of agricultural production for the year 1945 (census year) was:—

		Dollars
Grain	4,300 bushels	6,351
Hay	58,000 tons	2,531,808
Potatoes	1,472,300 bushels	2,061,251
Turnips	252,000 bushels	352,638
Cabbage	6,979,000 pounds	279,183
Beets	10,000 bushels	29,619
Carrots	21,000 bushels	62,724
Fruits	182,000 pounds	30,572
Milk	3,792,000 gallons	3,323,000
Butter	466,700 pounds	256,683
Eggs	1,576,750 dozen	1,497,914
Wool	181,800 pounds	90,938
Meats		
Poultry	460,000 pounds	230,000
Beef and Veal	2,800,000 pounds	840,000
Pork	2,000,000 pounds	600,000
Lamb and Mutton	1,410,000 pounds	423,000

Labour

Minimum work hours in Newfoundland are about eight hours, but the period varies greatly with the class of work.

There is no legislation regulating wages. Trade Dispute Boards may make binding findings on wage question. The Trade Dispute Arbitration and Inquiry Act of 1944 provides machinery for the settlement of industrial disputes and for inquiry into economic and industrial conditions.

Workmen's Compensation Act provides for payment of half the regular weekly earnings of injured workmen during disability or a total sum not in excess of $3,000. In case of death, dependents are entitled to a sum equal to the average earnings of deceased for three years, but not more than $3,000 total. Medical and surgical expenses are rated additional. A new Workmen's Compensation Act is now in draft.

Hourly Wage Rates for Employees

In the Mining Industry wages range from 68½ cents, basic rate, for labourers to a $1·08 per hour for skilled machine hands.

In the Pulp and Paper Industry wages range from 85 cents per hour for labourers to $2·14 per hour for a skilled machine tender.

NEWFOUNDLAND'S POPULATION BY DISTRICT AND INCREASE OR DECREASE BETWEEN 1935-1945

District	*Population*		*Percentage of total*		*Increase or Decrease*	
	1935	1945	1935	1945	*Numerical* 1935-45	*Per cent* 1935-45
White Bay	8,721	10,725	3·0	3·3	2,004	23·0
Green Bay	8,257	8,500	2·9	2·6	243	2·9
Grand Falls	14,373	19,409	5·0	6·0	5,036	35·0
Twillingate	8,798	9,521	3·1	3·0	723	8·2
Fogo	9,590	10,046	3·3	3·1	456	4·8
Bonavista North	12,319	13,127	4·3	4·1	808	6·6
Bonavista South	11,753	11,494	4·1	3·6	−259	−2·2
Carbonear-Bay de Verde	13,409	12,833	4·6	4·0	−576	−4·3
Trinity North	12,766	12,807	4·4	4·0	41	0·3
Trinity South	11,088	10,894	3·8	3·4	−194	−8·3
Harbour Grace	7,563	7,248	2·6	2·3	−315	−3·4
Port de Grave	8,750	8,234	3·0	2·6	−516	−5·9
Hr. Main-Bell Island	15,017	17,531	5·3	5·4	2,514	16·7
St. John's West	29,565	36,451	10·2	11·4	6,886	23·3
St. John's East	25,321	28,738	8·8	9·0	3,417	13·5
Ferryland	6,682	6,323	2·3	2·0	−359	−5·4
Placentia-St. Mary's	8,454	9,437	2·9	2·9	983	11·6
Placentia West	9,575	9,636	3·3	3·0	61	0·6
Burin	10,668	10,928	3·8	3·4	260	2·4
Fortune Bay-Hermitage	11,334	11,435	3·9	3·6	101	0·9
Burgeo-La Poile	9,293	9,344	3·2	2·9	51	0·5
St. George's-Port au Port	9,748	13,000	3·0	4·0	3,252	33·4
Humber	15,166	20,486	5·2	6·4	5,320	35·1
St. Barbe	6,662	7,496	2·3	2·3	834	12·5
Labrador	4,716	5,528	1·7	1·7	812	17·2
Total	289,588	321,171	100·0	100·0	31,583	10·9

* Minus sign (—) denotes decrease. * Rate of increase 1·01 per cent per annum.

Local Manufactures

	INDUSTRIAL ESTABLISHMENTS
St. John's	3 Men's clothing factories
	2 Men's underwear factories
	2 Biscuit factories
	3 Confection factories
	7 Aerated water plants
	4 Breweries
	Cordage and Net factories
	Nail and hardware factory
	Paint factory
	Oiled clothing factory
	Tobacco factory
	2 Boot and Shoe factories
	6 Furniture and Woodworking factories
	Steel boat building plant
	Ice cream plant
	Margarine plant
	Soap factory
	Trunk and suitcase factory
	Bedding factory
	Can manufacturing plant
	Concrete products plant
	Marine engine plant
	2 Broom factories
	Cap manufacturing plant
	2 Seal oil maufacturing plants
Harbour Grace	Men's clothing factory
	Boot and shoe factory
	Paper bag manufacturing plant
Grand Falls	Aerated water works
Curling	Aerated water works
	Brewery
Carbonear	Aerated water works
	Furniture woodworking plant
	Bedding factory
Corner Brook	Commercial foundry
	Furniture factory
Bay Roberts	Furniture woodworking plant
	Nail and hardware factory
	Brick manufacturing plant
Spaniard's Bay	2 Furniture plants
Glovertown	Furniture and woodworking plants
Brigus	Woollen mills
Clarenville	Shipbuilding plant
	Creosote plant
	Colas road surfacing plant
Monroe	Shipbuilding plant
Summerside, Bay of Islands	Herring, oil production plant
Petries, Bay of Islands	Herring packing plant

Air Transport

Newfoundland first gained prominence in air traffic when Brown and Alcock spanned the Atlantic from west to east in 1919.

At present two commercial air services link it with the North American continent. T.C.A. (Trans-Canada Air Lines) provides two flights daily to and from St. John's and Moncton, N.B., with intermediate connection at Sydney. T.C.A. planes carry a maximum of 10 passengers or 20 daily each way. Mail carried averaging 500 lbs. Connection is made at Moncton with the U.S. Northeast Air Lines to Boston, for passengers en route to the U.S. and from Moncton to Montreal for Canadian-bound passengers by T.C.A. Tickets covering transfer to all internal United States air lines are sold by T.C.A. Another service by " Clipper," operated by Pan-American World Airways, flies between New York, Shediac, N.B., and Gander, Newfoundland.

British Overseas Airways operate with Constellation planes through Gander.

Airports in Newfoundland are Gander (built by United Kingdom and Newfoundland before the war and now being taken over by Newfoundland following withdrawals of military forces). Torbay (built by Canada and to be operated by her). Harmon Field and Argentia (built and operated by U.S. under a 99-year lease as part of her military bases). Goose (on Lake Melville, Labrador, built and operated by Canada).

If the fourth and fifth freedoms eventually are agreed upon by the nations concerned it is presumed that all foreign airlines, as well as British airlines operating through Gander will be able to carry Newfoundland traffic to and from the United States and to the United Kingdom and Europe.

At the present time Pan-American World Airways and American Overseas Airways are operating regular flights through Gander and Trans-Continental and Western Air Inc., and Swedish Airlines are operating survey flights with K.L.M. (Dutch Airlines) preparing for eventual North Atlantic operations.

Newfoundland Railway

Besides the railway itself, Newfoundland Railway operates a fleet of coastwise passenger-freight steamers, serving outlying parts of the coast, and a group of steamships operating to and from Canadian ports, as well as some ten smaller motor vessels.

In 1947 there were 705 miles of government line with a gauge of 3 ft. 6 ins. and 56 miles of private line.

Government Departments

There are six Government departments—Natural Resources, Public Utilities, Finance and Customs, Public Health and Welfare, Justice and Defence, and Home Affairs and Education.

Following an announcement made in the British Parliament towards the close of 1945, that Newfoundland would be given the opportunity to determine her form of government for the future, steps were taken for the election of a National Convention during the summer of 1946. This Convention was composed of representatives from 37 districts and one from Labrador, who discussed what alternative proposals were to be submitted for a plebescite. This plebescite was held 23 July, 1947, and 52 per cent of the voters favoured confederation with Canada.

Newfoundland Board of Trade

Newfoundland had a Chamber of Commerce in St. John's as far back as 1852. In the great fire which swept St. John's in 1892, all its records were destroyed and the Chamber ceased to function.

In 1909 a petition was circulated among business and commercial men in St. John's asking for the creation of a Board of Trade and it was presented to the Government of the day with the support of the then Prime Minister, Sir E. P., later Baron Morris. The Newfoundland

Board of Trade was incorporated by Act of Parliament in the same year.

Annual meeting of the Board and installation of officers for the ensuing year takes place in February.

Since the advent of the Commission of Government in 1934 the Board has been an active liaison between business and the Government, especially since the institution of rationing, priorities and wartime restrictions.

The Board publishes a monthly Journal of Commerce, widely circulated throughout the business and commercial interests of the Island.

Affiliated with the Board is the Bay of Islands Businessmen's Association, whose members are also members of the Newfoundland Board of Trade.

Many of the proposals put forward by the Board, especially with regard to control of the fisheries, have been eventually adopted by the Government, and representatives from it are frequently included in Government delegations sent abroad.

Postal Telegraphs

All Newfoundland internal telegraph service is conducted under the Post Office by the Postal Telegraphs. The system is operated by telegraph and teletype instruments on land lines and by radio-telegraph to outlying places, this latter system being used where maintenance of land lines could not be efficient in difficult or wooden terrain or where submarine cables to islands would be necessary.

The smaller communities are served by telephone lines connecting the post office at such places with the nearest telegraph station. This system provides a reasonably good connection with practically every settlement in the Island.

On the coast of Labrador a system of wireless telegraph stations is maintained by Canadian Marconi Company under contract with Postal Telegraphs.

Posts and Telegraphs.—There were 617 Post Offices in 1946 of which 171 were telegraph offices comprising 67 land line offices, 95 wireless offices and 9 combined land line and wireless post offices. Of the total number of Post Offices, 55 were located on the Coast of Labrador.

Telephone System

Telephone communication is operated by Avalon Telephone Company with headquarters and central exchange at St. John's.

The system covers the whole Avalon Peninsula, Burin Peninsular, Grand Falls area (including Botwood, Bishop's Falls, Buchans, Millertown), and the Corner Brook area. Except for the Avalon Peninsula where the circuit is operated by land lines, the other circuits are linked by radio telephone circuits with land lines in those areas. A new wire service between St. John's and Gander and Grand Falls was recently inaugurated and will be extended.

In addition use is made of the service of the Broadcasting Corporation in Newfoundland to contact individuals or telegraph operators in case of emergency. Officials report this emergency measure has given most excellent results.

Corner Brook Mills and Port

Corner Brook is situated on the Humber Arm, Bay of Islands, West Coast of Newfoundland, twenty-one miles from South Head, at the entrance to the Bay of Islands and two miles west of the bottom of Humber Arm.

History

Corner Brook was first settled about one hundred years ago, but prior to the advent of the paper company it supported a population of about 200 to 250 only, and the chief sources of employment were fishing, lumbering and sawmilling.

Construction of the paper mill at tidewater commenced in 1923 and was completed in 1925. Running parallel with the construction of the mill the paper company built a modern town with a hospital, hotel, laundry and other communal facilities. Private enterprise, to a larger extent, carried out further developments in housebuilding, stores, churches and cinemas as the settlement increased, and today the population of the town is about 8,000.

The waterside development of two large paper storage warehouses, and wharves, originally constructed, has been substantially enlarged in the intervening years, so that at the present time the paper company has three large storage warehouses for its products and one smaller sufferance warehouse for inward general cargoes, also a wharf frontage of almost 2,200 feet in continuous length.

The power for the mills is supplied by the paper company's own hydro electric plant at Deer Lake, about 32 miles east of the mills, which is transmitted to Corner Brook on two lines of steel towers. The original installed capacity of the power house was approximately 100,000 horse power, which, in 1929, was increased by 50 per cent to approximately 150,000 horse power.

Ownership of the mills was acquired in August of 1938 by Bowater's Paper Mills Limited of England, through a Newfoundland subsidiary, and the name of the Corner Brook Company was thereupon changed to Bowater's Newfoundland Pulp and Paper Mills Limited.

Following the acquisition of ownership by Bowater's, a major extension was made to the sulphite mill and a new machine installed to manufacture sulphite pulp for export.

The daily production capacity of the mills is now more than 665 tons of newsprint and 130 tons of sulphite pulp.

The normal markets of the company for its products are the United Kingdom and the United States and all shipments are seaborne.

Imports consist chiefly of raw materials for the mills such as sulphur, china clay, pulpwood (local), alum, as well as steam coal and general supplies for the mills and woods operations. Also imported are domestic coal and goods for community use.

Communications

Corner Brook is on the main line of the Newfoundland Railway which runs from St. John's, the capital, to Port-aux-Basques at the south west corner of the Island.

The Railway also operates a coastal service between Humbermouth, about two miles from Corner Brook to St. John's, the capital, through the straits of Belle Isle, from May to December, calling at intermediate points. This service caters to freight and passenger needs and the round trip occupies about three weeks.

There are three mails in and out of the country by railway during the summer, and two each way in the winter. The Trans-Canada Airlines carry mail on every plane.

The local telegraph service is operated chiefly by the Newfoundland Postal Telegraphs and also by the Anglo-American Telegraph Company.

The Avalon Telephone Company of St. John's operates a long distance radio telephone service to Canada and the United States. Corner Brook is connected to this service.

TRADING WITH NEWFOUNDLAND

By J. C. BRITTON

Commercial Secretary, Office of the High Commissioner for Canada, St. John's

NEWFOUNDLAND'S external trade which increased sharply in both value and volume throughout the war rose to still higher levels in the postwar period and the country's economy in general is considerably sounder than it was in the 1930's. The principal exports—fish, pulp and paper and minerals are still in strong demand in world markets and despite exchange and other trading difficulties exporters are confident that 1948 production will all be sold at high prices in traditional markets. The demand for all types of goods normally imported still continues to be satisfactory and a period of increased trading is anticipated when Newfoundland's political future has been decided.

Trade Pattern not changed

The pattern of Newfoundland's external trade has not changed appreciably from that followed in pre-war years, notwithstanding the large increase in volume which has developed since the beginning of the war. The buying habits of the population have altered somewhat as funds became more readily available and better class merchandise now commands a wider sale. Newfoundland is still, in the main, a low-priced market although articles which would be considered in the low-priced field in Canada and the United States become medium- and high-priced lines with the addition of duties and other carrying charges to f.o.b. costs. The market, while limited in extent—the total population being only 320,000—is, nevertheless, an important outlet for an extensive range of Canadian products. It is, furthermore, likely to remain so for a number of years or at least until the present obstacles to world trading are removed and Newfoundland importers will continue purchasing many lines from Canada which would normally be imported, if available, from other supplying countries such as the United Kingdom. Canada has also developed into a market of considerable importance to Newfoundland exporters and the value of the country's exports to Canada has risen steadily in recent years.

INDUSTRY IN NEWFOUNDLAND

Fisheries

Fishing is still Newfoundland's principal industry providing a livelihood for more than forty per cent of the population while the products of the fishery comprise the largest percentage of the country's total exports. The more important fishery products shipped to external markets include salted cod and related species; fresh and frozen fish fillets; herring of all types; fish oils and meal; fresh and canned lobster; fresh salmon and canned fish. The cod fishery is the most important branch of the industry although great strides have been made in developing output of other types of fish. The production of salted cod in 1947 was 1,250,000 quintals (112 lbs.)—an increase of 200,000 quintals over the previous year. The quantity of frozen fresh fillets produced has been steadily increasing since processing was started in Newfoundland about ten years ago and, in 1945, reached the peak figure of 35,000,000 pounds. There was a decline in 1947 owing to lack of demand in the principal consuming market—the United States—but the frozen fillet producers, utilising modern fishing draggers have been working at an accelerated pace in the first quarter of 1948. There are fourteen filleting plants in Newfoundland and with the increased use of draggers these plants are in a position to supply larger quantities on a year round basis in the future.

The herring fishery under the stimulus of war time and relief contracts which were forthcoming in the past four years is again quite active. Exports of all types of pickled herring in 1940 amounted to 10,000,000 pounds but, in 1946, they reached the high figure of 65,000,000 pounds. Herring production in 1948 should be well up to that of the previous year as the Newfoundland Fisheries Board recently closed a contract for 200,000 barrels of 225 pounds with the United States Army Procurement authorities for shipment to the U.S. Zone in Germany.

The seal fishery, now in full swing, is being prosecuted by twenty-five vessels—a larger number than 1947 which was the first active year following a lull during the war. The total includes four Canadian; two United States; three Panamanian and one Norwegian vessel. The ice and weather conditions have been unfavourable for the hunt and all vessels have sustained damage—in many cases of serious proportions. Three vessels have been lost and very few are in a condition to make a second voyage as in 1947. The quantity of seal oil exported in 1947 exceeded 400,000 gallons and reliable estimates place the 1948 production at about the same figure. The seal hunt provided employment, many years ago, when as many as 700,000 seals were taken (1947 catch 105,000), for large numbers of Newfoundland fishermen during the spring of the year and it is likely to be again intensively prosecuted. There are two whaling factories and six whale catching ships operating from Newfoundland and whale oil production in 1947 exceeded 1,000,000 gallons with the output of guano exceeding 4,000,000 pounds. Common cod oil output in 1947 was 925,000 gallons.

Shipments of fresh lobster from Newfoundland have been steadily increasing and in 1947 totalled 3,146,000 pounds. This compares with 2,531,537 pounds in 1946. Several of the shipments have gone forward by air freight. Fresh and frozen salmon production prior to the war averaged from three to four million pounds annually. The decline in output which occurred during the war has been checked and in 1947 exports totalled 2,000,000 pounds. Increased attention has been devoted to fish canning and although exports are not as yet large, they are increasing in both volume and variety.

Paper Production

Newfoundland's pulp and paper industry has expanded considerably in the past few years and is rapidly assuming a dominant position in Newfoundland's economy. The industry now employs around 15,000 and plans have been made for further expansion in the future. It is probable therefore that an increase in the output of pulp and paper products, which was placed at 473,460 short tons in 1947, will be recorded shortly. Newsprint production in 1947 amounted to 397,506 tons and sulphite 67,400 tons.

Mining

Newfoundland is an important source of supply for iron, lead, zinc and copper ores and limestone and fluorspar. Iron ore production in 1947 amounted to 1,425,000 long tons compared with 1,244,172 in 1946. The output of lead, zinc and copper ore was 340,000 short tons in 1947 compared with 390,000 in 1946. Production of lead concentrates was 35,500 short tons in 1947 and 39,727 in the previous year; copper concentrates 16,000 tons in 1947 and 19,153 in 1946 and zinc concentrates 70,000 tons and 87,673 tons in the same two years. The output of fluorspar in 1947 was 29,000 tons compared with 20,272 tons in the preceding year while limestone production was 322,000 long tons in 1947 and 350,139 tons in 1946. The mining industry now employs 3,000 men.

Secondary Industries

Newfoundland's secondary industries are limited in extent but nevertheless several hundred Newfoundlanders are employed in the various plants and factories which are mostly located in St. John's. The products manufactured include paints; footwear; blankets; clothing; confectionery; biscuits; jams and jellies; marmalades; aerated waters; beer; cordage; marine engines; stoves; wood and coal ranges; nails; ice-cream; oleomargarine; smoked meat; cans; mattresses; paper bags; furniture; brick; concrete blocks; cigarettes and barrels. There are more than 800 sawmills in the country—the largest percentage being small outfits although there are several of fairly good size. The bulk of Newfoundland's lumber requirements are forthcoming from local sources.

Agriculture is a small scale industry in Newfoundland and attempts are being made to expand production, particularly of basic crops such as potatoes, cabbage, turnips and hay which, along with beets and carrots, comprise the bulk of crops grown. There is a small production of milk, butter, poultry, eggs, beef, veal, pork, lamb, mutton and wool. The quantities of these commodities available does not begin to meet the demand and Newfoundland is a regular importer of vegetables, fruits, feeds and packing house products of all types.

Total Trade

The value of Newfoundland's total trade in 1946-47 amounted to $147,254,901. This compares with $128,605,516 in 1945-46; $114,536,046 in 1944-45; $56,447,962 in 1938-39. It will be noted that Newfoundland's foreign trade more than doubled in the war and postwar period. Imports in 1946-47 were valued at $74,827,596 compared with $65,898,707 in 1945-46; $65,824,066 in 1944-45 and $24,460,618 in 1938-39. The value of exports of Newfoundland produce in recent years has been slightly below imports, being placed at $69,345,836 in 1946-47; $61,011,716 in 1945-46; $46,414,485 in 1944-45. Newfoundland's exports, previous to the war—$31,376,144 in 1938-39 were usually higher in value than imports.

Import Trade

The value of Newfoundland's imports has risen steadily from $15,166,868 in 1932-33 to the record figure of $74,827,596 for the fiscal year 1946-47. As the country is dependent on outside sources for practically all essential foodstuffs and other commodities the value of import trade provides an accurate barometer to economic conditions. Throughout the 1930's Newfoundland imports did not rise much above $25,000,000. Commencing in 1940, the picture changed completely as war time expenditures on base construction began and Newfoundland exports were sold at high prices in world markets. Newfoundland's imports jumped from $28,421,897 in 1939-40 to $35,484,343 in 1940-41—$64,684,894 in 1941-42 and $52,376,886 in 1942-43 (a nine-month period). Foodstuffs and beverages in the fiscal year 1946-47 comprised 37 per cent of Newfoundland's imports. The balance was made up of textiles and clothing—12 per cent; non-metallic minerals 12 per cent; machinery and vehicles 11 per cent; inedible animal and feed products 8 per cent; metals and manufactures 6 per cent; wood and pulp manufactures 5 per cent and chemicals and related products 4 per cent,

The largest individual items imported into Newfoundland in 1946-47 are shown below :

Preserved meats	$5,432,341
Cotton, wool and outer clothing	4,905,257
Coal	3,650,533
Industrial machinery	3,179,615
Sugar and products	2,906,410
Flour and meal	2,735,465
Gasoline	2,577,770
Motor cars, trucks and buses	2,013,186
Milk and products	1,799,680
Edible oils and fats	1,638,383
Preserved fruits and juices	1,583,701
Tobacco and products	1,462,735
Fresh Meats	1,413,372
Hardware, cutlery, utensils and fixtures	1,340,468
Electrical supplies	1,320,084
Fresh fruits	1,277,559
Cotton fabrics	1,088,567
Leather footwear	1,021,716
Fuel oils	1,016,651
Fresh vegetables	1,012,793
Vehicles other than motor cars and trucks	977,851
Wood manufactures	955,151
Rubber footwear	829,056
Wines, liqueurs and beers	820,938
House Furnishings	746,788
Animal Feeds	718,487
Wire, bolts, nails, screws	727,980
Paper containers and wrapping paper	707,087
Medical preparations	706,988
Soap and toilet preparations	675,465
Construction materials	670,282
Lumber	610,004
Industrial machinery	592,787
Oils and greases	585,505
Electric motors and machinery	583,890
Coarse salt	549,969
Wool fabrics	511,880

Direction of Import Trade

Canada, the United States and the United Kingdom furnished 97 per cent of Newfoundland's total imports in 1946-47 and 98 per cent in the previous fiscal years. Canada and the United States together supplied 92 per cent and 90 per cent respectively in the two years. Newfoundland was dependent on the United States and Canada for most of the country's needs in the war and postwar years, and it can be reported that few, if any, shortages developed and in fact most commodities were in better supply in Newfoundland than they were in the exporting countries. Previously, the United Kingdom supplied a larger share of the country's imports and exports from the United Kingdom are now appearing in larger quantities on the market. The principal sources of supply of Newfoundland's imports in the fiscal years 1946-47; 1945-46; 1938-39 and 1937-38 are shown in the following table :

Imports by countries

	1946-47	1945-46	1938-39	1937-38
Totals ..	$74,827,596	$65,898,707	$24,196,618	$27,912,351
Canada ..	43,087,154	41,376,293	9,196,212	9,973,700
United States	25,800,832	20,602,611	7,677,814	9,408,729
U.K. ..	4,198,400	2,604,238	5,877,670	6,351,620

Final returns showing imports into Newfoundland in the fiscal year 1947-48 are not yet available. There is every indication, however, that the total will exceed all previous figures including the record year 1946-47.

Newfoundland's Export Trade

Newfoundland's exports go forward to several markets in direct contrast to imports that are forthcoming largely from three countries. They consist entirely of products of the fisheries, pulp and paper and minerals. There are other exports such as furs, berries and lumber products but the total value of these miscellaneous exports form a very small percentage of total exports. The United States, United Kingdom and Canada in that order are the largest purchasers of Newfoundland produce and in the fiscal year 1946-47, 61 per cent of the country's exports were consigned to these three markets—compared with 67 per cent in the previous year. Newfoundland's chief export markets in the fiscal years 1946-47 and 1945-46 are shown in the following table:

Exports of Newfoundland Produce

	1946-47	1945-46
Totals	$69,358,425	$60,863,405
United States	23,943,036	18,668,759
United Kingdom ..	11,445,505	14,016,920
Canada	7,009,687	8,652,065
Portugal	2,768,698	2,512,872
Italy	2,730,654	1,767,253
Porto Rico	2,577,771	2,580,669
Spain	2,061,994	2,986,926
Argentina	1,992,848	368,135
Jamaica	1,951,147	1,458,026
Mexico	1,856,969	2,107,659
Australia	1,799,917	723,276
Russia	1,103,374	——
France	1,086,796	684,611

The more important exports to the United States include newsprint and minerals such as copper concentrates; lead concentrates; fish fillets; fresh fish; fish oils and pickled herring. The United Kingdom is a substantial purchaser of Newfoundland iron ore; newsprint; pulp wood and zinc concentrates; and exports to that market in 1946-47 were made up of these commodities. Portugal, Italy, Porto Rico, Spain and Jamaica are the chief purchasers of dried cod fish, which, for many years, has been the country's basic export commodity. Newsprint shipments to Mexico, the Argentine and Australia make up the total exports to the three countries in 1946-47 and exports to Russia in the same year were made up entirely of pickled split herring. France resumed purchases of zinc concentrates from Newfoundland in 1945-46 and total sales to that market increased in 1946-47.

Shipping and Communications

There are regular steamship sailings between Eastern Canadian ports and Newfoundland throughout the entire year. During the close of navigation on the Great Lakes and the St. Lawrence, Halifax and North Sydney are the principal ports used. From late April to early December there are regular sailings from Montreal to St. John's and also to Corner Brook as well as from Charlottetown to St. John's. In addition, there is a service operated by the Newfoundland Railway throughout the year from North Sydney to Port aux Basques and thence through the centre of Newfoundland to St. John's. The Newfoundland Railway also maintains a coastal steamship service which covers the entire coast of Newfoundland and Labrador with connecting points on the main railway line. The South Coast Service operates all the year while that to the remainder of the country is closed from January to May. The principal steamship companies with sailings between Canada and Newfoundland include: Shaw Steamship Company, Limited; Clarke Steamship Company Limited; Newfoundland Canada Steamships Limited; Montreal Shipping Company; Blue Peter Steamships Limited and the Furness Red Cross Line. A considerable percentage of the freight and passenger traffic between Canada and Newfoundland is routed via the Sydney-Port aux Basques route. Trans-Canada-Airlines also maintain a regular passenger and air freight service between the mainland and Newfoundland, while the Gander air terminal is a regular scheduled stop for all trans-atlantic air lines. Traffic through the Gander airport has been steadily increasing and it is estimated that landings during the present summer will be around 1,400 monthly.

Banking and Methods of Payment

There are branches of four Canadian banks located at St. John's and in the larger towns in the island. The unit of currency used in Newfoundland is the Canadian dollar and commercial transactions are carried on with a minimum of difficulty between Newfoundland and Canadian firms. Collections in general present no problem as practically all the larger importing firms are old established reputable traders with adequate finances. Ordinarily, leading accounts are accorded sight draft or thirty to sixty day terms and Canadian exporters should not hesitate to grant this type of credit to good accounts.

Methods of Distribution

The best type of distribution to be utilised in order to ensure a satisfactory volume of sales in Newfoundland as in other markets, varies with the class of product being sold. There are a number of excellent wholesale firms located mainly in St. John's handling a very extensive range of merchandise. These firms in some instances, have branches in Corner Brook and their salesmen regularly cover both large and small retail accounts throughout the island. The larger retail firms, including leading department stores also transact a substantial volume of wholesale trade and, in many cases, firms operating solely as wholesalers and some retail firms, are exclusive distributors or agents for overseas manufacturers. In such instances, firms do not solicit orders from their competitors but the volume of sales transacted by the larger retail and wholesale firms is substantial and would represent a worthwhile proportion of the available trade. It can be accepted as a general rule that the larger commercial firms in St. John's, Grand Falls and Corner Brook will, wherever possible, purchase direct from manufacturers. This applies also to the mining and paper companies. This practice which is growing, restricts the number of accounts to which wholesale firms can sell, but it does broaden the field, formerly limited, in which agents can work.

The products which offer the best prospects for agents include: foodstuffs and provisions; patent medicines; toilet articles; confectionery and biscuits; canned fruits and vegetables; fruit and vegetable jucies; alcoholic beverages; kitchen and household utensils; animal feeds; dairy products, i.e., all lines which have a fairly large turnover. There are only a few agents who specialise in textiles, apparel and piece goods, as merchants prefer to have their buyers purchase these articles and send them to Canada and the United States for this purpose. This practice has been followed for many years with respect to purchases in the United Kingdom. Purchases of style goods, novelties, household furnishings and department store merchandise are also made on these buying trips or from travelling salesmen visiting Newfoundland with sample ranges. The best possible method of developing a worth while volume of business in Newfoundland is by a personal visit by salesmen or officials of exporting firms. Such a trip presents a minimum of difficulty to Canadian exporters as there are excellent rail, air and steamship services available thoughout the year.

Tariff and Documentation

The Newfoundland tariff is primarily designed as a source of revenue and in fact the largest percentage of the country's finances is derived from customs duties. The rates of duty on most items other than on essential foodstuffs are generally fairly high. The tariff is arranged under three headings with full, intermediate and preferential rates. The full and intermediate rates are in most cases the same, but on a large range of imports—falling under 140 separate tariff classifications the United Kingdom is accorded preferential rates varying from 5 to 10 per cent below the intermediate rates. The intermediate rates of duty apply to imports from Canada and the United States.

Duties are assessed on the current domestic value of articles in the principal markets of the country from which the goods are exported. This is defined in the Newfoundland Customs and Excise Act of 1938 as the price at which similar goods are freely offered for sale for home consumption in the ordinary course of trading to all purchasers in minimum wholesale quantities, without any discounts save such as may be determined and allowed by the Board of Customs. In practice, normal trade discounts are allowed in determining the value of goods for duty purposes. Samples are dutiable at the ordinary rates as are also the packing cases of containers in which goods are shipped while advertising matter is also subject to duty.

Newfoundland has no anti-dumping regulations but the Board of Customs are empowered to fix the value for duty on any goods imported into Newfoundland under conditions or at prices or values which would involve unfair competition with producers or manufacturers in the British Empire, including Newfoundland.

The only documents required by the Newfoundland Customs authorities are duplicate copies of the Imperial Customs Conference Form of Invoice with the Combined Certificate of value and origin on the reverse side.

Import and Export Regulations

There are only a very few commodities still under import control. These include: animal feeds; flour; oils and fats; sugar; butter; cheese; dried beans and soaps. Practically all commodities other than Newfoundland produce and gift parcels are still subject to export control, and may not be shipped from the country without an export permit. Fish products such as salted cod and related species, herring, pickled turbot, dried squid, live lobsters and fresh and frozen salmon and fish oils such as herring oil, seal oil, whale oil, and common cod oil may only be exported from Newfoundland under permits issued by the Newfoundland Fisheries Board. It is expected that frozen fillets will, in the near future, be subject to the same regulations.

Population and Area

The most recent census taken in Newfoundland in 1945 showed the population as being 321,101. The only city of any size is St. John's with a population of 64,000. There are approximately 33,000 inhabitants in Corner Brook and surrounding area; 12,000 in Grand Falls and 5,400 in Bell Island. The remainder of the inhabitants are scattered in small communities along the Railway line and on the country's extensive coast line of 6,000 miles.

The area of Newfoundland is 42,000 square miles with that of Newfoundland-Labrador 110,000 square miles. The climate of the country is similar to that of the Maritime Provinces of Canada. The island of Newfoundland is separated from the mainland of North America at the narrowest point, in the north, by the Straits of Bell Island—9 miles, and from Cape Breton in the south by the Cabot Strait—60 miles.

Undoubtedly one of the best forms of advertising in Newfoundland is through the medium of radio. Many firms utilise the two daily papers in St. John's—the *Daily News* and the *Evening Telegram* and weekly papers such as *Sunday Herald*, St. John's, *Western Star*, Corner Brook, and *Grand Falls Advertiser*. The circulation of the leading papers would not exceed 20,000. There are, in addition, two or three firms who have their own monthly paper, which is delivered to their customers throughout the island, free of charge. These of course concentrate on advertising their own particular products but they also accept advertisements from outside sources.

NEWFOUNDLAND-CANADA TRADE

By J. C. BRITTON

Commercial Secretary, Office of the High Commissioner for Canada, St. John's

THE value of reciprocal trade between Canada and Newfoundland in the postwar period has been slightly above the high wartime figure. Increased quantities of merchandise are now coming forward to Newfoundland from the United States and the United Kingdom so that the immediate problem confronting Canadian exporters is not so much one of increasing sales but of maintaining the value of Canada's exports to this important secondary market at or about present levels. There are a number of factors which might enable Canada to continue as the main source of supply for Newfoundland's imports. The more important advantages include: proximity to the market, and the long standing commercial relations existing between Newfoundland and Canadian firms. Furthermore, many Canadian exporters have studied the Newfoundland market at first hand, and have an intimate knowledge of the preference of buyers for which they cater specially. As a result of this, prices at which Canadian products are quoted to Newfoundland firms have, in general, been in line. The present lull in trading, attributed to the uncertain political situation has held down purchases of Canadian and other commodities to some extent. This is expected to be of a temporary nature and it is anticipated that the demand for Canadian merchandise will continue to be strong when a decision with respect to Newfoundland's future political status has been reached.

Canadian exports to Newfoundland in 1947 were more than five times greater than imports from that country into Canada. Newfoundland has only a limited number of commodities available for export, consisting principally of fishery products, pulp and paper and minerals, and most of these are in abundant supply in Canada. The opportunities of expanding the value of Newfoundland's exports to Canada are, accordingly, limited, but it is encouraging to note that there has been a steady rise in recent years. As Newfoundland's production becomes more diversified it is possible that further advances will take place.

Total Trade

The progressive increase in reciprocal trade between Canada and Newfoundland in the past eight years will be evident from a study of the figures contained in the table below. This shows imports into Newfoundland from Canada and exports from Newfoundland to Canada in the fiscal years 1946-47 and 1945-46, 1938-39, 1937-38.

	1946-47	1945-46	1938-39	1937-38
Imports	$43,087,154	41,376,293	9,196,212	9,973,700
Exports imcluding re-exports	9,155,282	9,770,461	2,454,648	3,146,570
	$52,242,436	51,146,754	11,650,860	13,120,270

Although Newfoundland's exports to both the United States and the United Kingdom in 1946-47 were greater than exports to Canada, the combined value of exports and imports between Canada and Newfoundland was higher than the country's total trade with these two markets.

Imports from Canada

There were more than 150 different separate commodities imported into Newfoundland from Canada in the fiscal year 1946-47 with a value exceeding $50,000. The bulk of Canadian imports are made up of: agricultural products; foodstuffs of all types, including flour, tea, sugar, confectionery, pickled beef, pickled pork, fresh meats, packing house products, cheese, butter, evaporated milk, eggs; animal and vegetable fats; canned foods and soups; fresh vegetables; cattle for slaughter; animal feeds and alcoholic beverages. Newfoundland is also a very important market for Canadian Mail Order Houses who have many customers throughout the island.

There were, in addition to foodstuffs, substantial quantities of textiles, clothing, apparel, footwear, building materials, soaps, automobiles and parts; paper machinery; railway rolling stock; paints and chemicals, and large imports of fuel oil, gasoline and coal. shipped from Canada to Newfoundland during the past few years.

Newfoundland's imports from Canada cover a very wide range, having regard to the limited extent of the market. The principal imports from Canada in the fiscal years 1946-47 and 1945-46 are shown in the following table :

Principal Imports from Canada

	1946-47 $	1945-46 $
TOTAL	43,087,154	41,376,293
Coal Bituminous ..	2,552,413	2,421,526
Wheat Flour	2,214,629	2,446,063
Gasoline	1,469,000	3,686,474
Tea	1,016,797	868,328
Pickled beef	798,829	589,344
Parcel post shipments	785,747	621,101
Crude Petroleum and fuel oil	741,239	446,263
Bologna sausage ..	741,200	654,147
Animal fats n.o.p ..	739,730	16,624
Fresh beef and trimmings	590,339	799,573
Evaporated milk ..	562,772	450,279
Oats	529,372	527,213
Milled animal and poultry feed	520,657	569,471
Confectionery	504,113	348,084
Pickled pork	444,983	464,948
Apples	428,482	280,487
Eggs in shell	420,495	428,090
Cattle for slaughter ..	418,767	380,988
Motor fuel oil coloured low octane	365,302	291,297
Vegetable fats n.o.p ..	343,057	39,389
Paper boxes and other containers	327,233	215,837
Rayon dresses	325,009	253,508
Hams and tongues ..	304,198	247,046
Bulls and oxen ..	287,134	317,073
Women's boots and shoes leather	273,959	143,612
Fresh pork	270,814	219,050

Principal Imports from Canada—continued.

	1946–47	1945–46
	$	$
Overshoes, gaitees, gaiters	265,336	282,322
Bacon and bellies	258,225	150,439
Power driven machinery and parts n.o.p	249,576	105,870
Bunker fuel oil	246,739	439,442
Hay	246,091	170,242
Cheese	253,034	274,936
Smoked and cured meats	243,815	244,331
Poultry	238,638	260,998
Canned soups	220,065	216,708
Lubricating oils	215,519	197,243
Motor trucks and buses	215,915	68,242
Kerosene	205,087	163,528
Canned beef	203,326	143,175
Motor cars	194,828	9,451
Men's suits	191,041	138,995
Automobile parts	189,951	158,623
Coats, skirts for women and girls	188,417	155,551
Whiskey	181,043	221,750
Wire screens for paper machines	179,486	185,492
Horses	167,193	203,143
Manufactures of iron and steel n.o.p.	166,859	78,413
Ready mixed paints and enamels	166,713	156,281
Knee, thigh and hip rubbers	163,070	200,311
Small marine engines	161,468	116,398
Felt for pulp and paper machines	160,273	178,756
Laundry soap	151,433	163,804
Men's hats	150,435	106,645

Other Imports from Canada

There are very few items in the Newfoundland Customs returns which do not show imports from Canada. The creditable volume of total imports is made up largely of small transactions as there are only a limited number of products reaching substantial value. The list is somewhat lengthy but a few of the additional Canadian imports from the standpoint of value in the fiscal years 1946-47 and 1945-46 are shown below:

Other Imports

	1946-47	1945-46
	$	$
Butter	155,462	201,746
Undressed furs and skins	149,998	5,362
Women's hosiery	149,385	84,561
Overcoats	142,981	102,442
Beer	139,626	274,776
Waxed and greaseproof paper	139,371	109,077
Fruit flavourings and essences	135,485	121,566
Dried beans	135,390	122,759
Fibre Board	133,692	116,374
Wooden furniture	133,531	88,566
Pneumatic tyres	132,134	162,188
Lard	129,219	77,059
Gasoline and motor fuel n.o.p.	129,718	13,862
Canned fruits	128,397	109,698
Granulated sugar	126,162	95,382
Building and roofing compounds	121,100	112,786
Wire	120,609	135,320
Fertilisers and mixtures	120,382	72,915
Lard compounds and substitutes	118,932	74,810
Canned meats n.o.p.	117,214	154,101
Paper machinery and parts	115,202	54,935
Mens outer woollen garments n.o.p.	115,084	81,497
Men's cotton shirts	114,191	113,924
Airplane parts and accessories	109,791	7,033
Fishermen's rubber suits	108,347	66,855
Soap powders	107,613	149,201
Fresh fruits	103,366	107,856
Sole leather	103,262	99,237
Leather boots and shoes, men's	100,096	35,212
Baking powder	100,019	89,460

Exports to Canada

The chief products shipped from Newfoundland to Canada in the fiscal year 1946-47 included: iron ore; whale oil; fluorspar; fresh salmon; limestone; cod fillets; fresh lobster; refined cod liver oil; seal oil and canned lobster. As has been the case in recent years, the number of Newfoundland products sold to Canadian firms has risen, as the fishery, in particular, has become more diversified. There has been an increased demand for all types of Newfoundland fish on the part of Canadian firms both for sale in Canada and for re-sale abroad. Newfoundland in point of fact, has not been able to begin to meet the demand from Canada and elsewhere for fresh and canned fish; fish oils and meals; seal oil and newsprint, and, undoubtedly, if supplies had been available exports to Canada for the past two years in particular would have been much larger. Canada is still a very substantial purchaser of Newfoundland's iron ore, fluorspar and limestone and, as the output of Newfoundland industry becomes more varied, opportunities will undoubtedly present themselves to increase the flow of Newfoundland's basic exports to eastern and central Canada. The chief exports from Newfoundland to Canada in the fiscal years 1946-47 and 1945-46 are listed below:

Principal Newfoundland Exports to Canada

	1946-47	1945-46
	$	$
Iron ore	1,696,688	1,662,873
Whale oil	603,693	210,232
Fluorspar	601,610	354,387
Fresh salmon	570,697	270,804
Limestone	485,666	224,500
Cod fillets	448,044	1,507,692
Fresh lobster	353,409	1,306,266
Refined cod liver oil	258,684	556,365

Principal Newfoundland Exports to Canada—contd.

	1946–47 $	1945–46 $
Seal oil	195,416	62,439
Canned lobster	114,332	25,700
Whale sperm oil	86,087	196,441
Haddock, fresh and frozen	79,371	64,004
Furs, muskrat	78,932	66,746
Common cod liver oil	75,571	81,047
Hides and skins	75,050	28,694
Cod fish, fresh and frozen	66,274	24,010
Undressed seal skins	58,621	2,492
Fish meal, n.o.p	33,458	68,413
Furs, red fox	32,144	8,855
Boned codfish, fresh and frozen	27,370	13,502
Bream, fresh and frozen	25,631	7,750
Lingon berries	24,720	40,570
Whale meal	24,602	—
Furs, mink	24,160	25,702
Lobster meat, canned	23,614	1,352
Herring meal	21,407	—
Smoked cod fillets	19,317	23,669
Herring, fresh and frozen	17,574	7,180
Scollops	17,433	—
Furs, otter	17,023	13,160
Furs, beaver	15,107	15,858
Furs, white fox	14,251	11,615
Furs, Cross fox	10,742	5,431
Furs, ermine	10,699	17,977
Salmon, canned	9,047	36,262

Summary

Newfoundland's economy has undergone something of a transformation during the past ten years during which existing industries have been expanded. It is not anticipated that the volume of the country's external trade will fall off to any marked extent during the next few years as fishery products, pulp and paper and minerals are still in short supply in world markets. Returns from the sale of the country's output should ensure fairly prosperous conditions for the next two or three years at least with imported lines in good demand.

Many Canadian products which were not sold in Newfoundland in any substantial volume prior to the war have now become fairly well established. The improved quality of such Canadian lines as apparel, footwear, clothing, electrical appliances, canned foods, confectionery, alcoholic beverages and hardware, is now recognised by Newfoundland buyers and Canadian exporters may expect to retain a worthwhile share of the trade in these particular commodities. Although the market is in close proximity to Canada, it is essential that goods be securely packed to avoid damage en route and, more particularly, pilferage which is quite prevalent. Deliveries should, furthermore, be made promptly and Customs Invoices sent to importing firms well in advance of the arrival of the goods. It is important to bear in mind that there is no tariff preference in favour of Canadian goods over the chief competing market—the United States. If the present volume of Canadian trade is to be maintained and increased, Canadian firms are advised to study the Newfoundland market continuously.

FOREIGN STEAM SERVICES

Furness Withy & Company

Before the war this steamship line with its own offices and piers in St. John's operated two fine ships with accommodation for 190 passengers between Liverpool, St. John's, Halifax and Boston in trips of about 17 days. Both these steamers entered the Empire's service during the war and both were casualties.

For some time the Furness Withy Company used its own steamers as occasion warranted in the Newfoundland trade but has now two new ships which bear the same names as the two which gave their lives in the war—Newfoundland and Nova Scotia.

These ships are faster, making the trip from Liverpool to St. John's in about five days, and carry 150 passengers with improved accommodation.

This Company has large pier space and bonded warehouse accommodation.

Furness Withy Company also represent American Airlines in Newfoundland and K.L.M. or Royal Dutch Airlines. American Airlines operate a service from New York, Boston, Philadelphia, Washington and Chicago to Europe via Gander airport. K.L.M. are at present making experimental flights only.

Harvey & Company

Steamship lines to Newfoundland represented by Harvey and Company are:—Newfoundland-Canada Steamships Limited, Furness-Red Cross Line, Fjell Line and Clarke Steamships Limited.

Newfoundland-Canada Steamships run two services of fortnightly periods, one from Halifax to St. John's and the other Montreal to St. John's.

Furness-Red Cross operate a weekly service from New York, via Halifax, to St. John's with steamers "Fort Amherst" and "Fort Townshend."

Fjell Line operates ships between London, Antwerp, Rotterdam and St. John's to Montreal and the Great Lakes at irregular periods.

Clarke Steamships conduct a summer service only between Montreal, Charlottetown, P.E.I. and St. John's on a three week schedule.

Air Service.—Besides surface ships Harvey and Company are agents for Trans-Canada Airlines air express service.

Harvey and Company have extensive piers and bonded warehouse accommodation.

A. Harvey & Company

A. Harvey and Company represent Montreal Shipping Company and Norwegian Supply of London. They are also shipping agents for Anglo-Newfoundland Development Company at St. John's. They serve as a coaling depot and during the war supplied all Admiralty ships requiring bunkering. They are also stevedoring contractors and have their own piers and coal yards.

Shaw Steamship Company

Shaw Steamship Company operate a fortnightly service Montreal and Great Lakes to St. John's and a fortnightly service between Halifax, Charlottetown, St. Pierre and St. John's. They also have a tramp service to West Indies and Europe. Marine Agencies are their agents at St. John's, head office being at Halifax.

Marine Agencies Limited

Marine Agencies Ltd., are agents for Shaw Steamship Company and have extensive piers and bonded warehouses, doing their own stevedoring. They also represent the Orange Line running to Hamburg, Antwerp, London and with irregular landing at St. John's according to freight demands. The management has been taken over by Job Brothers and Company.

Newfoundland Railway

Newfoundland Railway operates, besides the line of coastwise steamers and motorships, a tri-weekly ferry between Port aux Basques and North Sydney. A new ship for this service is now under construction on the Clyde. Another steamer plies between Newfoundland ports and Halifax. The Railway also conducts a regular service fortnightly with the Labrador coast with limited tourist accommodation, during the summer months.

Western Terminals Limited, Corner Brook

The Western Terminals Limited which commenced operations in January 1946 have taken over the waterside premises which had been previously leased to the Clarke Steamship Company Limited by Bowater's Newfoundland Pulp and Paper Mills Limited.

This wharf is situated eastward of the mill wharves and has a frontage of 600 ft. with 20 feet of water alongside at low tide.

Three warehouses are erected on the premises with a shed space of approximately 2,000 square feet.

The Clarke Steamship Company will continue to operate a fortnightly service between Montreal and Corner Brook utilising the facilities and premises of the Western Terminals Limited.

Public Services

TRANSPORT IN CANADA

CANADA, nearly 4,000 miles in length from east to west, with the main topographic barriers running in a north-south direction, and a relatively small population of 12,307,000 thinly distributed along the southern strip of this vast area, presents unusual difficulties from the standpoint of transportation. Different parts of the country are shut off from each other by areas of rough, rocky forest terrain, such as the region lying between New Brunswick and Quebec, the areas north of Lakes Huron and Superior, dividing the industrial region of Ontario and Quebec from the agricultural areas of the prairies, and the barriers interposed by the mountains of British Columbia. To such a country with a population so distributed and producing mainly for export, as do western agriculturists, or for consumption in distant portions of the country itself, as do manufacturers, cheap transportation is a necessity of life.

In order to appraise the value of each of the agencies of transportation, this Section, after treating of Government control over agencies of transportation and communication deals with the four main agencies, namely, carriers by rail, road, water and air.

GOVERNMENT CONTROL OVER TRANSPORTATION

With the modern development of new forms of transportation, it is becoming increasingly important to realise that the several agencies of transportation—carriers by rail, road, water and air—are, or should be, inter-related parts of an integral whole where each agency has its place in the efficient provision of necessary transportation in Canada. The Dominion Department of Transport was organised on Nov. 2, 1936, under authority of c. 34 of the Statutes of 1936, to unify in one Department the control and supervision of railways, canals, harbours, marine and shipping, civil aviation, radio and meteorology.

The business of transportation and communications is, generally speaking a 'natural monopoly,' i.e., a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. For this reason there has been a strong tendency toward consolidation and amalgamation over the past half century. The outstanding example of these consolidations in Canada in recent years is the concentration of control of the railways of the country in the hands of the Canadian Pacific Railway Company and the Canadian National Railways.

Such control inevitably brings with it elements of monopoly and possible overcharge, and it has been deemed advisable in Canada, as in other countries, to set up authorities to control the rates to be charged and the other conditions under which services to the public are to be rendered by common carriers. This control, so far as the railways within the jurisdiction of the Dominion Government are concerned, is now in the hands of the Board of Transport Commissioners. From time to time the regulatory authority of the Commission has been extended to a limited extent to other utilities (see under "Air Transport Board" below).

Besides the Board of Transport Commissioners, there exist, in several of the provinces, bodies that undertake among their duties the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates for service. Among these are the Ontario Department of Municipal Affairs (formerly the Railway and Municipal Board of Ontario, established in 1906), the Quebec Commission of Public Utilities established in 1909, the Nova Scotia Board of Commissioners of Public Utilities and the Public Utilities Commission of Manitoba. In the three most westerly provinces these same duties are performed by provincial Departments of Railways.

The Board of Transport Commissioners for Canada

An explanation of the situation that led to the introduction of railway regulation by commission in Canada, as well as other information relating to the organisation of the Board, procedure, judgments, etc., is given in the 1940 Canada Year Book.

Powers of the Board.—With regard to transport by rail, these cover matters relating to the location, construction and operation of railways. The most important of these powers has to do with rate regulation. Passenger rates are divided into standard and special; freight rates into standard, special and competitive. Standard rates are maximum rates and the only ones that must be approved by the Board before they are applied. Special and competitive rates, being less than maximum rates, may be applied by railways without the Board's approval, provided that a change of rates has been advertised. Important rate adjustments, however, usually come to the notice of the Commission, for a changed rate alters the extent of the territory in which a shipper can compete and on this account he is likely to appeal the case to the Commission.

By an amendment to the Railway Act, the regulation of telephone, telegraph and express rates was given to the Commission, but with narrower powers than were given to it in dealing with railways. By the Transport Act, 1938 (as amended by 8 Geo. VI, c. 25, 1944, and by an Act passed during the first session, twentieth Parliament, 9 Geo. VI, c. 32, 1945) and since Jan. 15, 1939, following a proclamation of the Governor in Council to that effect, the Board has power to issue licences to ships engaged in the transportation of passengers or goods on the Great Lakes and the Mackenzie River, as defined in Sect. 2, Sub-section 1 (f) and (hh) of the Transport Act, 1938. The Board is required to perform the functions vested in it under the Transport Act and the Railway Act with the object of co-ordinating and harmonising the operations of all carriers engaged in transport by railways and ships. The Board may require every applicant for a licence under the Transport Act to establish public convenience and necessity to its satisfaction and take into consideration the financial responsibility of a licensee or applicant. The Board may, in the licence, state the ports between which the ships named therein may carry goods or passengers and the schedule of services which shall be maintained; every standard tariff and every amendment and supplement thereto shall require the approval of the Board before it becomes effective.

Air Transport Board

The responsibilities of the Board of Transport Commissioners relating to the control of civil aviation were transferred to the Air Transport Board by an amendment to the Aeronautics Act (8 Geo. VI, c. 28, 1944), which was proclaimed in effect as from Oct. 31, 1944. The Board is to advise the Minister of Transport on civil aviation; to licence all forms of commercial air transport on the basis of public convenience and necessity; and to exercise economic control in the matter of financial responsibility, schedules, rates and charges, insurance and other matters. The organisation of the Board comprises the Secretary's Branch, which includes the Administrative and Licensing Divisions, and the Traffic and Research Aeronautical Engineering Branches. The economic analyses, surveys and statistical reports of the Board are prepared in the Bureau of Transportation Economics, established in 1947 under the Board of Transport Commissioners to co-ordinate under one department all economic studies pertaining to air, rail and water transportation in Canada.

Under the 1944 amendment, all commercial air transport flying must be licensed; previously only scheduled services required licensing. Also, an operating certificate, issued by the Civil Aviation Division of the Department of Transport, must be held by the air carrier certifying that he is adequately equipped to operate a safe service.

Amendments to the Aeronautics Act were passed under 9-10 Geo. VI, c. 9, assented to Dec. 15, 1945, extending the definition of a commercial air service to include, " any use of aircraft in or over Canada for hire or reward " and further determined the rights and duties of the Board.

The Board is required, under Section 13 of the Aeronautics Act, to review all licences respecting commercial air services issued prior to the establishment of the Board and, to this end, in collaboration with the Department of Reconstruction and Supply, the Board commenced a Dominion-wide traffic pattern survey in 1945. During 1946, two members of the Board toured and inspected practically all the air services under review and the full Board conducted public hearings across Canada to review evidence and hear representations, from the licensees and any interested parties. All the information secured, supplemented by statistical data accumulated by the Board, has now been studied and the Board's report on the Review of Licences was issued early in 1947.

Since its inception, the Board has issued a limited number of licences for new scheduled services and a considerable number for non-scheduled services throughout the Dominion.

STEAM RAILWAYS

The steam railway is the most important transportation agency from the standpoint of investment and of traffic handled and the statistical field is more completely covered for this form of transportation than for any other.

Mileage and Equipment of Steam Railways

Although construction was begun in 1835 on the first railway in Canada—the short link of 16 miles between Laprairie and St. Johns, Que.—there were only 66 miles of railway in operation by 1850. The first great period of construction was in the 1850's when the Grand Trunk and Great Western railways, as well as numerous smaller lines, were built. The building of the Intercolonial and the Canadian Pacific railways contributed to another period of rapid expansion in the 1870's and 1880's. In the last period of extensive railway building from 1900 to 1917, the Grand Trunk Pacific, National Transcontinental and Canadian Northern Railways were constructed.

During the past decade, there has been a tendency for railway mileages to decline slightly because of the abandonment of unprofitable lines. Of the 42,352 miles of single track operated in 1945, 21,571 were part of the Canadian National System.

TABLE I

RECORD OF STEAM-RAILWAY MILEAGE, 1931-45

Total Mileage (Single Track)	
Year to 31 Dec.	*Miles in Operation*
	No.
1931 ..	42,280
1932 ..	42,409
1933 ..	42,336
1934 ..	42,270
1935 ..	42,916
1936 ..	42,552
1937 ..	42,727
1938 ..	42,742
1939 ..	42,637
1940 ..	42,565
1941 ..	42,441
1942 ..	42,339
1943 ..	42,346
1944 ..	42,336
1945 ..	42,352

Mileage, by Provinces				
Type of Track and Province	1931	1936	1941	1945
	miles	*miles*	*miles*	*miles*
SINGLE TRACK—				
Prince Edward Island	286	286	286	286
Nova Scotia	1,418	1,397	1,396	1,396
New Brunswick	1,934	1,871	1,836	1,836
Quebec	4,926	4,777	4,789	4,764
Ontario	10,905	10,746	10,476	10,480
Manitoba	4,419	4,860	4,854	4,838
Saskatchewan	8,268	8,624	8,777	8,782
Alberta	5,630	5,687	5,747	5,687
British Columbia	4,097	3,907	3,883	3,886
Yukon	58	58	58	58
In United States	339	339	339	339
TOTALS, SINGLE TRACK ..	42,280	42,552	42,441	42,352
SECOND TRACK	2,688	2,500	2,499	2,487
INDUSTRIAL TRACK	1,606	1,401	1,551	1,684
YARD TRACK AND SIDINGS	10,277	10,239	10,210	10,288
GRAND TOTALS ..	56,851	56,692	56,701	56,811

TABLE II
ROLLING-STOCK OF STEAM RAILWAYS, AS AT DEC. 31, 1939-45

Type	1939	1940	1941	1942	1943	1944	1945
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
Locomotives—							
Passenger	1,174	1,189	1,124	1,197	1,213	893	933
Freight	2,592	2,374	2,339	2,351	2,376	2,640	2,606
Switching	571	709	696	726	731	836	843
Electric	36	36	40	41	44	47	49
TOTALS, LOCOMOTIVES	4,373	4,308	4,199	4,315	4,364	4,416	4,431
Passenger Cars—							
First class	1,874	1,860	1,886	1,973	2,007	1,984	1,965
Second class	252	242	246	259	273	268	263
Combination	371	370	361	364	366	364	356
Immigrant	353	358	371	385	395	380	379
Dining	197	194	182	192	192	196	196
Parlour	244	235	222	205	156	142	142
Sleeping[1]	983	915	901	880	783	789	787
Baggage, express and postal	1,573	1,576	1,553	1,576	1,656	1,658	1,645
Motor-cars	85	83	77	75	73	71	68
Other	455[2]	434[2]	436[2]	433[2]	418[2]	411[2]	410[2]
TOTALS, PASSENGER CARS[1]	6,387	6,267	6,235	6,342	6,319	6,263	6,211
Freight Cars—							
Box	115,492	116,629	112,134	110,916	112,815	117,068	117,886
Flat	11,692	12,049	11,897	11,998	10,870	10,953	10,892
Stock	5,985	5,866	5,753	6,029	6,510	6,471	6,437
Coal	17,770	17,453	17,505	18,106	19,900	21,104	21,340
Tank	402	389	366	362	348	348	343
Refrigerator	6,713	6,534	6,191	6,372	6,424	6,587	6,372
Other	1,964[3]	1,777[3]	1,394[3]	1,528	1,523	1,536	1,499
TOTALS, FREIGHT CARS	160,018	160,697	155,240	155,311	158,390	164,067	164,769

[1] Includes Pullman Co. cars in Canadian service.
[2] Includes 3 auto-railers
[3] Includes 1 auto-railer.

Rolling-Stock

The figures in Table II may be supplemented by the statement that between 1920 and 1945, the average capacity of box cars increased from 34·779 tons to 42·459 tons, of flat cars from 33·459 to 43·110 tons, of coal cars from 43·404 tons to 56·590 tons, and of all freight cars from 35·141 tons to 43·905 tons. The average tractive power of the locomotives increased from 31,112 lb. in 1920 to 41,854 lb. in 1945.

Finances of Steam Railways

The tables in this sub-section deal with capital liability, capital investment, earnings, operating expenses, employees and their earnings and Government aid to steam railways. However, the presentation of the financial statistics of railways in Canada would not be complete without some detailed consideration of the finances of the Government-owned railways. This is given in the latter part of the sub-section. Statistics of individual railways covering single-track mileage, capital, earnings and operating expenses, may be found in the annual report "Statistics of Steam Railways of Canada," published by the Dominion Bureau of Statistics.

Capital Liability.—The great increase after 1922 in the capital liability of the steam railways of Canada is due to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as part of the capital liability of the railways. The reduction after 1937, brought about by the Canadian National Capital Revision Act (c. 22, 1937), is explained in the 1939 Canada Year Book.

TABLE III
CAPITAL LIABILITY[1] OF STEAM RAILWAYS, 1931-45

Year	*Stocks*	*Funded Debt*	*Total*
	$	$	$
1931	1,438,050,759	2,793,971,329	4,232,022,088
1932	1,437,489,430	2,934,182,332	4,371,671,762
1933	1,438,834,552	2,951,690,468	4,390,525,020
1934	1,437,334,152	2,966,505,594	4,403,839,746
1935	1,433,849,530	3,026,414,779	4,460,264,309
1941	1,697,545,699	1,699,942,865	3,397,488,564
1942	1,578,254,765	1,793,579,270	3,371,834,035
1943	1,614,936,131	1,741,664,036	3,356,600,167
1944	1,636,064,822	1,707,801,676	3,343,866,498
1945	1,672,959,689	1,817,720,939	3,490,680,628

[1] Does not include Canadian railway capital owned by Canadian railways.

Capital Investment.—The capital structure of the Canadian National Railways, changed by the Capital Revision Act, 1937, was reduced by $262,770,972. The excess of capital liability as shown in Table III over the investments in road and equipment shown in Table IV is accounted for by loans and advances from the Government to cover deficits of the Canadian National Railways and by the fact that some railway stocks issues represented little actual investment in physical property. The investment account in recent years has been affected by write-offs for lines abandoned, transfers of property to other Government Departments, etc.

Earnings and Expenses.—The operating ratio, or ratio of expenses to revenues, of Canadian railways increased from around 70 per cent to above 90 per cent between 1917-20, and remained high thereafter. The United States Government took over the operation of the United States railways and increased the rates of pay of the railway employees when that country entered the War of 1914-18. The Canadian railways were also obliged to make corresponding increases and these have been the chief factor in increased operating ratio. Declining revenues without corresponding reductions in expenses during the depression period also maintained the high ratio. The period from 1938 to 1943 showed a sharp decline in this ratio, due primarily to the greatly increased freight traffic occasioned by the War of 1939-45 and a subsequent acceleration in gross earnings. A rising trend was again in evidence in 1944 and 1945.

TABLE IV

CAPITAL INVESTED IN ROAD AND EQUIPMENT OF STEAM RAILWAYS, 1940-45

Investment	1940	1941	1942	1943	1944	1945
	$	$	$	$	$	$
New Lines—						
Road	1,182	Cr. 422,363	74,972	71,838	Cr. 4,452	2,793,751
Equipment	Cr. 3,500	—	—	7,935	Cr. 35,570	85,985
General	7	3,776	—	1,688	252	—
TOTALS ..	Cr. 2,311	Cr. 418,587	74,972	81,461	Cr. 39,770	2,879,736
Additions and Betterments—						
Road	6,659,074	8,786,600	46,537,589[1]	Cr. 8,895,492	11,147,929	3,224,843
Equipment	66,340,262	9,566,002	19,603,725	28,214,476	44,239,856	20,581,957
General	92,198	Cr. 17,112	Cr. 89	418,705	2,081	Cr. 24,644
Undistributed	Cr. 17,056	Cr. 265,260	Cr. 11,917	—	—	450
TOTALS ..	73,074,478	18,070,230	66,129,308	19,737,689	55,389,866	23,782,606
Undistributed[2]	Cr. 9,437,903	Cr. 10,004,302	Cr. 5,878,078	Cr. 4,776,307	1,332,965	Cr. 3,194,164
TOTALS, INVESTMENTS AS AT DEC. 31	3,159,573,547	3,167,220,888	3,227,547,090	3,242,589,993	3,299,272,994	3,322,741,172

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[1] Includes $74,728,521 transferred to depreciation reserve and a credit of $34,534,220 transferred to premium on capital and debenture stocks.

[2] Details of this item are given in the annual report " Statistics of Steam Railways of Canada " isued by Transportation and Public Utilities Division of the Bureau of Statistics.

TABLE V

EARNINGS AND OPERATING EXPENSES OF STEAM RAILWAYS, 1942-45

Year	*Gross Earnings*	*Operating Expenses*	*Ratio of Expenses to Receipts*	*Per Mile of Line*			*Freight Train Revenue per Freight Train Mile*	*Passenger Train Revenue per Passenger Train Mile*
				Gross Earnings	*Operating Expenses*	*Net Earnings*		
	$	$	*p.c.*	$	$	$	$	$
1942	663,610,570	485,783,584	73·20	15,659	11,463	4,196	6·53	2·93
1943	778,914,565	560,597,204	71·98	18,398	13,241	5,157	6·98	3·68
1944	796,636,786	634,774,021	79·68	18,861	15,029	3,832	6·91	3·82
1945	774,971,360	631,497,562	81·49	18,331	14,937	3,394	6·92	3·70

TABLE VI

DISTRIBUTION OF OPERATING EXPENSES OF STEAM RAILWAYS, 1942-45

Item	1942		1943		1944		1945	
	$	*p.c.*	$	*p.c.*	$	*p.c.*	$	*p.c.*
Way and structures	99,957,948	20·6	120,597,853	21·5	138,250,189	21·8	132,470,385	21·0
Equipment	119,318,819	24·6	130,009,452	23·2	146,692,062	23·1	144,500,231	22·9
Traffic	10,332,990	2·1	10,542,715	1·9	11,146,008	1·8	11,203,744	1·7
Transportation	226,557,608	46·6	261,689,121	46·7	295,852,998	46·6	297,754,037	47·2
General and miscellaneous	29,616,219	6·1	37,758,063	6·7	42,832,764	6·7	45,569,165	7·2
TOTALS	485,783,584	100·0	560,597,204	100·0	634,774,021	100·0	631,497,562	100·0

Government Aid to Railways.—In order that the private railways of Canada might be constructed in advance of settlement, as colonisation roads, or through thinly settled districts where little traffic was available, it was necessary for Dominion and Provincial Governments and even for municipalities to extend some form of assistance. The form of aid was generally a bonus of a fixed amount per mile of railway constructed and, in the early days, grants of land other than for right-of-way were also made.

As the country developed, the objections to the land-grant method became more apparent, and aid was more frequently given in the form of a cash subsidy per mile of line, a loan or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that system, except those for rolling-stock, have been guaranteed by the Dominion Government. No new land grants or cash subsidies have been advanced by either the Dominion or Provincial Governments since 1939.

During the era of railway expansion before the War of 1914-18, Provincial Governments guaranteed the bonds of some railway lines that afterwards were incorporated in the Canadian National Railways. As these bonds mature they are paid off by the Canadian National Railways in large measure through funds raised by the issue of new bonds with Dominion Government guarantee. In this manner bonds guaranteed by the Governments of Ontario, Manitoba, Saskatchewan and Alberta have been eliminated in recent years.

Financial Statistics of Government-Owned Railways.—The major portion of Dominion Government investments in railways consists of construction costs of the Intercolonial System, the National Transcontinental Railway and the Hudson Bay Railway, and the purchase price of small railways in the Eastern Provinces.

Operating Finances of the Canadian National Railways.—Gross revenues, operating expenses and net revenues include only those from steam railway and commercial telegraph operations, but the deficits are for the entire system, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

Under the Canadian National Railways Capital Revision Act (c. 22, 1937), interest on Dominion Government loans, amounting to $530,832,598, and Government claims for interest, amounting to $43,949,039, were cancelled as liabilities of the Railway and these have been eliminated from Table VIII as fixed charges. Also loans of $270,037,438 for capital and $373,823,120 for deficits were cancelled.

TABLE VII

ASSETS OF THE CANADIAN NATIONAL RAILWAYS SYSTEM, AS AT DEC. 31, 1945

Account	*Dec.* 31, 1945
	$
Investments—	
Road and equipment	1,970,804,554
Improvements on leased railway property	3,019,854
Sinking funds	839,449
Deposits in lieu of mortgaged property sold	3,985,633
Miscellaneous physical property	63,814,190
Affiliated companies	41,342,144
Other investments	987,167
Deferred maintenance funds	39,000,000
TOTAL INVESTMENTS	2,123,792,991
Current Assets—	
Cash	[1]28,007,409
Special deposits	10,916,725
Net balances receivable from agents and conductors	13,891,323
Miscellaneous accounts receivable	14,972,723
Materials and supplies	49,979,115
Interest and dividends receivable	712,971
Rents receivable	Nil
Other current assets	7,210,337
TOTAL CURRENT ASSETS	125,690,603
Deferred Assets—	
Working fund advances	371,661
Insurance and other funds	12,425,769
Pension contract fund	29,671,000
Other deferred assets	3,072,290
TOTAL DEFERRED ASSETS	45,540,720
Unadjusted Debits—	
Rents and insurance premiums paid in advance	92,846
Discount on funded debt	5,702,293
Other unadjusted debits	2,535,564
TOTAL UNADJUSTED DEBITS	8,330,703
GRAND TOTALS	2,303,355,017

[1] Includes demand loans and deposits.

TABLE VIII

GROSS REVENUES, OPERATING EXPENSES, NET REVENUES, FIXED CHARGES AND DEFICITS OF THE CANADIAN NATIONAL RAILWAYS,[1] 1942-45

NOTE.—Appropriations, etc., for the Hudson Bay Railway are not included with these data; although the Railway was returned to the Government while under construction, it is not now a part of the Canadian National Railways.

Year	*Gross Operating Revenues*	*Operating Expenses*	*Income Available for Fixed Charges*	*Total Fixed Charges*	*Net Income Credit*	*Cash Credit*
	$	$	$	$	$	$
1942	375,654,544	288,998,675	78,952,433	51,669,935	27,282,498	25,063,268
1943	440,615,954	324,475,669	87,859,084	52,189,536	35,669,548	35,639,412
1944	441,147,510	362,547,044	73,473,733	50,474,480	22,999,253	23,026,924
1945	433,773,394	355,294,048	73,521,185	49,009,507	24,511,678	24,756,130

[1] Includes the Central Vermont Railway, Inc.

TABLE IX

DEBT OF THE CANADIAN NATIONAL RAILWAYS, AS AT DEC. 31, 1942-45

Year	*Funded Debt Held by Public*			*Government Loans and Advances—*	*Appropriations for Canadian Government Railways*[1]	*Grand Total*[2]
	Guaranteed by—		*Unguaranteed*	*Active Assets in Public Accounts*		
	Dominion Government	*Provincial Governments*				
	$	$	$	$	$	$
1942	741,896,436	4,718,822	62,600,316	502,856,461	16,771,981	2,028,137,130
1943	685,290,925	2,786,056	56,155,492	537,323,765	16,771,981	2,035,393,793
1944	576,585,327	2,702,155	50,166,424	645,103,872	16,771,981	2,050,695,085
1945	525,688,314	2,586,932	44,904,751	674,201,613	16,771,981	2,046,123,159

[1] Working capital, the remainder of the account being eliminated.

[2] Includes Dominion Government Proprietor's Equity beginning at $676,327,701 and capital stock held by the public amounting to $4,584,100 on Jan. 1, 1937, and $777,326,528 and $4,643,040 respectively, on Dec. 31, 1945. Acquisition of small railways with stock outstanding caused a net increase in stock of the system in the hands of the public.

Capital Structure and Debt of Canadian National Railways.—The share capital on Dec. 31, 1922, consisted of $165,627,739 stock of the Grand Trunk Railway held by the Dominion Government and $100,000,600 of the Canadian Northern Railway stock also held by the Dominion Government. There was also outstanding $4,591,975 stock of constituent lines held by the public. Table IX shows the capital liabilities of the Canadian National Railways other than shareholders' capital. The amounts shown under " Active Assets " represent largely temporary loans and explain the large increases during the war years.

Steam Railway Traffic

Passenger and Freight Traffic.—Table X shows the passenger and freight statistics for all steam railways for the years 1942-45. A separate analysis is given in Table XI of the operations and traffic of the Canadian National Railways, since, being controlled by the Dominion Government, the information is considered of special interest.

TABLE X

STATISTICS OF PASSENGER AND FREIGHT SERVICES AND REVENUE RECEIPTS, 1942-45

Year	Passengers				
	Revenue Passenger-Train Miles[1]	*Passenger-Train Car Miles*[1]	*Passengers Carried*[2]	*Passengers Carried One Mile*	*Passengers Carried One Mile per Mile of Line*
	No.	*No.*	*No.*	*No.*	*No.*
1942	43,271,994	395,118,691	47,596,602	4,989,295,894	117,728
1943	45,745,039	433,828,200	57,175,840	6,525,064,000	154,122
1944	46,575,706	450,042,986	60,335,950	6,873,188,000	162,729
1945	47,067,607	447,822,527	53,407,845	6,380,155,000	150,917

Year	Passengers				
	Average Receipts per Passenger Mile	*Average Receipts per Passenger*	*Average Passenger Journey*	*Average Passengers per Train*	*Passenger-Train Revenue per Passenger-Train Mile*
	cts.	$	*miles*	*No.*	$
1942	1·83	1·92	105	115	2·93
1943	1·90	2·16	114	143	3·68
1944	1·92	2·18	114	148	3·82
1945	1·96	2·34	120	136	3·70

Year	Freight				
	Revenue Freight-Train Miles	*Revenue Freight-Train Car Miles*[3]	*Freight Carried*[4]	*Freight Carried One Mile*	*Freight Carried One Mile per Mile of Line*
	No.	*No.*	*tons*	*tons*	*tons*
1942	77,080,637	2,968,594,473	134,674,537	56,153,953,000	1,325,011
1943	81,443,279	3,132,419,669	153,314,264	63,915,074,000	1,509,674
1944	83,564,629	3,297,475,933	155,326,332	65,928,078,000	1,560,908
1945	80,712,589	3,189,311,345	147,348,566	63,349,095,000	1,498,465

Year	*Freight Receipts per Ton per Mile*	*Receipts per Ton Hauled*	*Average Length of Freight Haul*	*Average Train Load Revenue Tons*	*Average Load per Loaded Car Mile*	*Revenue per Freight-Train Mile*
	cts.	$	*miles*	*tons*	*tons*	$
1942	0·896	3·74	417	729	30·71	6·53
1943	0·890	3·71	417	785	32·75	6·98
1944	0·876	3·72	424	789	32·70	6·91
1945	0·882	3·79	430	785	32·57	6·92

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[1] Includes express, baggage, mail, etc., cars. [2] Duplications included. [3] Includes caboose miles and excludes miles made in passenger and non-revenue trains. [4] Duplications eliminated; see Table X11 for details of freight carried.

Commodities Hauled.—Revenue freight hauled by the railways reached a peak in 1944 at 155,326,332 tons and declined in 1945 to 147,348,566 tons but the average haul increased from 424 to 430 miles and consequently the ton miles showed a smaller decline. The large decreases occurred in crude petroleum, gasoline and petroleum oils, which were moved in large quantities between United States stations and through Canada in 1942, 1943 and 1944. The movement of automobiles for war purposes also affected the rail traffic in this group and caused a reduction in 1945; coal declined by 1,915,366 tons or 8·4 per cent.

TABLE XI

COMMODITIES HAULED AS FREIGHT ON STEAM RAILWAYS, 1942-45

NOTE.—In this table duplications are eliminated, i.e. the same freight handled by two or more railways is counted only once. The statistics do not include the United States lines of the Canadian National System, but the link of the Canadian Pacific Railway line across Maine, U.S.A., is included, as are the Canadian sections of United States railways.

Group and Product	1942	1943	1944	1945
Agricultural Products—	*tons*	*tons*	*tons*	*tons*
Wheat	11,564,297	13,371,658	19,166,310	18,902,873
Oats	1,338,866	3,034,224	3,274,128	3,665,012
Other grain	2,809,175	4,721,579	4,263,697	4,294,454
Flour	2,046,132	2,352,518	2,438,640	2,621,881
Other mill products	2,590,758	3,360,673	3,416,639	3,538,199
Other agricultural products	3,788,123	4,136,586	4,716,705	4,803,909
TOTALS, AGRICULTURAL PRODUCTS	24,137,351	30,977,238	37,276,119	37,826,328
Animal Products—				
Live stock	960,217	1,153,591	1,383,003	1,441,491
Meats and other edible packing-house products	1,148,516	1,219,789	1,422,365	1,233,710
Other animal products	1,073,037	1,104,359	1,156,657	1,052,580
TOTALS, ANIMAL PRODUCTS	3,181,770	3,477,739	3,962,025	3,727,781
Mine Products—				
Coal, anthracite	4,676,540	4,720,325	4,499,947	3,506,113
Coal, bituminous	15,259,888	15,871,518	14,870,676	13,599,473
Coal, sub-bituminous	[1]	[1]	[1]	1,824,055
Coal, lignite	3,448,824	4,092,255	3,450,644	1,976,310
Coke	2,010,738	2,475,789	2,338,440	2,711,620
Ores and concentrates	9,832,283	10,587,950	9,472,768	8,161,513
Base bullion, matte, pig and ingot (non-ferrous metals)	1,775,987	1,704,282	1,474,859	1,509,002
Sand and gravel	2,107,223	1,782,136	1,704,796	1,919,592
Stone (crushed, ground, broken)	1,978,967	2,116,817	2,179,283	2,218,017
Other mine products	7,963,445	10,961,889	7,238,915	6,064,692
TOTALS, MINE PRODUCTS	49,053,895	54,312,961	47,230,328	43,490,387
Forest Products—				
Logs, posts, poles, piling	1,337,824	1,225,255	1,279,317	1,235,585
Cordwood and other firewood	1,007,915	1,223,932	1,437,240	1,115,396
Pulpwood	3,746,150	4,100,022	4,631,222	5,428,452
Lumber, timber, box, crate and cooperage material	6,910,943	6,296,116	6,438,991	6,366,457
Other forest products	695,092	593,459	769,390	624,879
TOTALS, FOREST PRODUCTS	13,697,924	13,438,784	14,556,160	14,770,769
Manufactures and Miscellaneous—				
Gasoline and petroleum products	7,476,092	11,251,125	12,344,731	8,056,963
Iron and steel (bar, sheet, structural pipe)	3,987,716	3,686,936	2,917,205	2,780,032
Automobiles, trucks and parts	2,367,171	3,122,876	2,745,277	2,043,343
Newsprint paper	2,786,815	2,869,793	2,854,971	2,890,982
Wood-pulp	1,871,289	1,941,248	1,749,315	1,827,339
Other manufactures and miscellaneous	23,047,926	24,823,147	26,110,938	26,272,861
Merchandise (all L.C.L. freight)	3,066,588	3,412,417	3,579,263	3,661,781
TOTALS, MANUFACTURES AND MISC.	44,603,597	51,107,542	52,301,700	47,533,301
GRAND TOTALS	134,674,537	153,314,264	155,326,332	147,348,566

[1] Included with lignite prior to 1945.

Mileage and Traffic of the Canadian National Railways.—At Dec. 31, 1945, steam railway track mileage of the C.N.R. (including lines in the United States but exclusive of the Northern Alberta Railways and Toronto Terminals Railway, which are controlled jointly by the Canadian National and the Canadian Pacific Railways) was 23,535. Including the Thousand Islands Railway, 4·51 miles, and the Muskegon Railway and Navigation Co., 5·25 miles, controlled but separately operated, the total steam mileage was 23,545. Including 115·4 miles of electric lines, the grand total was 23,660 miles.

TABLE XII

TRAIN TRAFFIC STATISTICS[1] OF THE CANADIAN NATIONAL RAILWAYS (CANADIAN AND UNITED STATES LINES) 1945

Item		1945
Train Mileage—		
Passenger trains	No.	24,600,264
Freight trains	„	43,381,957
TOTAL TRAIN MILES[2] ..	No.	67,982,221
Passenger-Train Car Mileage—		
Coaches and combination	No.	88,784,979
Motor unit cars	„	972,725
Parlour, sleeping and dining cars ..	„	73,033,000
Baggage, mail, express, etc.	„	76,592,295
TOTAL PASSENGER-TRAIN CAR MILES[2] ..	No.	239,382,999
Freight-Train Mileage—		
Loaded freight-car miles	No.	1,174,010,548
Empty freight-car miles	„	528,632.862
Caboose miles	„	44,159,917
TOTAL FREIGHT-TRAIN CAR MILES[2] ..	No.	1,746,803,327
Passenger Traffic—		
Passengers carried (earning revenue) ..	No.	30,370,680
Passengers carried (earning revenue) one mile	„	3,338,197,658
Passenger-train miles per mile of road	„	1,047
Average passenger journey	miles	109·9
Average amount received per passenger	$	2·14680
Average amount received per passenger mile	$	0·01953
Average passengers per train mile ..	No.	135·7
Average passengers per car mile ..	„	37·2
Total passenger-train earnings per train mile	$	3·83
Total passenger-train revenue per mile of road	$	4,007·02
Freight Traffic—		
Revenue freight carried	tons	79,941,296
Revenue freight carried one mile ..	„	34,599,518,473
Revenue freight carried one mile per mile of road	„	1,472,423
Total (all classes) freight carried one mile per mile of road	„	1,589,767
Average tons revenue freight per train mile	No.	798
Average tons (all classes) freight per loaded car mile	„	31·83
Average hauls revenue freight ..	miles	432·8
Freight revenue per train mile ..	$	7·30
Freight revenue per mile of road ..	$	13,470·44
Freight revenue per ton	$	3·96
Freight revenue per ton mile	$	0·01

[1] Excludes electric lines. [2] Work service excluded.

ELECTRIC RAILWAYS

Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. Before many years their safety and convenience resulted in the discarding of the older systems. The first electric railway line in Canada, and probably the first in North America, ran between Windsor and Walkerville and was established early in June, 1886.

The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. In the cities of Eastern Canada, electric street railways are generally operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the street railways are owned and operated by the municipalities.

Equipment of Electric Railways

The single overhead-trolley system is used by all electric railways but Edmonton, Montreal and Winnipeg have begun to use also a double overhead trolley and trackless trolley-buses (67 of these buses being in service in 1945). Of the 33 systems, 23 operated both electric cars and motor-buses in 1945, the buses numbering 1,454. The main advantage of the bus is that it is not confined to a fixed route and, in the case of both motor-buses and trolley-buses, the expense of track maintenance is eliminated.

A summary of the equipment operated by electric railway companies is given in Table XIII.

TABLE XIII

EQUIPMENT OF ELECTRIC RAILWAYS, 1943-45

Item	1943	1944	1945
	No.	No.	No.
Passenger Vehicles—			
Closed cars	3,303	3,350	3,361
Open cars	8	4	4
Combination passenger and baggage ..	8	8	7
Cars without electrical equipment ..	139	138	131
Motor-buses	1,329	1,444	1,454
Trackless trolley-buses	41	42	67
TOTALS, PASSENGER VEHICLES ..	4,828	4,986	5,024
Other Vehicles—			
Baggage, express and mail cars ..	19	19	19
Freight cars	163	165	165
Locomotives	52	53	53
Snow ploughs	70	77	75
Sweepers	148	148	149
Trucks	163	147	148
Miscellaneous	202	194	206
TOTALS, OTHER VEHICLES ..	817	803	815

Finances of Electric Railways

When electric railways have ceased to operate because of either a decline in traffic or the substitution of motor-buses, their statistics have been excluded from the following table. Consequently, fluctuations in revenues, etc., have been affected by variations in traffic and also by changes in the mode of local transportation. Despite these changing conditions, the gross revenues of electric railways have continued to increase since the low point reached in 1933 and very marked increases have been shown each year since 1940.

TABLE XIV

FINANCIAL STATISTICS OF ELECTRIC RAILWAYS, 1942-45

Year	*Capital Liability*			*Investment in Road and Equipment*	*Gross Earnings*	*Operating Expenses*	*Ratio of Expenses to Receipts*	*Employees*	*Salaries and Wages*
	Stocks	*Funded Debt*	*Total*						
	$	$	$	$	$	$	*p.c.*	*No.*	$
1942 ..	37,616,432	151,523,248	189,139,680	205,989,595	69,034,130	43,473,516	62·97	16,051	27,923,343
1943 ..	37,492,392	147,433,845	184,926,237	204,586,208	80,027,414	54,548,335	68·16	17,896	33,975,281
1944 ..	37,540,432	142,364,766	179,905,198	202,666,204	84,730,173	58,202,151	68·69	19,034	36,845,152
1945 ..	37,329,194	142,384,083	179,713,277	205,026,475	88,939,451	64,533,940	72·56	20,091	39,364,771

Electric Railway Traffic

The passenger mileage travelled by electric cars in 1945 amounted to 127,954,458, by trackless trolley-buses, 2,168,204 and by motor-buses 45,375,858. The number of passengers carried by electric railways in the years since 1939 showed an especially sharp rise over previous years due to increased traffic resulting from improved conditions, and the curtailment of passenger automobile traffic as a result of the War. The 1,316,571,540 passengers carried in 1945 was by far the greatest traffic ever handled by these systems, the increase over 1944 being 5·4 per cent.

TABLE XV

STATISTICS OF ELECTRIC RAILWAY OPERATIONS, 1942-45

Year	*Miles of Road*		*Electric Car and Bus Mileage*			*Fare Passengers Carried*[1]	*Freight Carried*[1]
	Total	*With Double Track*	*Passenger*	*Other*	*Total*		
	miles	*miles*	*miles*	*miles*	*miles*	*No.*	*tons*
1942 ..	1,017·24	488·01	152,518,129	2,852,757	155,370,886	996,208,535	3,711,468
1943 ..	1,019·29	487·91	164,050,357	2,773,462	166,823,819	1,177,003,883	3,751,785
1944 ..	1,019·69	490·17	169,421,343	2,756,755	172,178,098	1,249,707,399	3,769,959
1945 ..	1,015·54	488·30	175,498,520	2,777,976	178,276,496	1,316,571,540	3,639,989

[1] Including passengers and freight carried on buses and trackless trolley-buses operated by electric railways.

EXPRESS COMPANIES

Express service is an expedited freight service on passenger trains, but express companies do not own the means of performing their services; they use railway facilities by virtue of contracts with the railway companies. Express companies in Canada have had close relations with the railways practically from the beginning.

Goods are sent by express for quick transit, so that express rates do not generally compete with freight rates. Thus, in its first tariff the Dominion Express Co., in pursuance of its contract with the Canadian Pacific Railway, gave a rate of 2½ times the maximum first-class railway freight rate for the same goods carried the same distance. The majority of the contracts between express and railway companies for carrying express freight are on the basis of a percentage of the gross express revenue. The rates paid by the shipper are subject to the approval of the Board of Transport Commissioners. Express companies are all organised under powers conferred by Acts of the Dominion Parliament and their business consists in the expeditious shipment of valuable live stock, and such perishable commodities as fresh fish, fruit, etc., the forwarding of parcels, and the issue of money orders, travellers cheques, letters of credit and other forms of financial paper.

Express Company Operations.—Four express organisations operate in Canada—three Canadian and one American. The Canadian Pacific Express Co., formerly the Dominion Express Co., is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National system and Northern Alberta Railways is handled by departments of the respective railways. The Railway Express Agency, Inc., operates over the Canadian sections of United States railways and over the route from Skagway to points in Yukon. No statistics are available regarding the volume of traffic carried by express. Much of the traffic, of course, consists of parcels and small lots which would make statistical classification and measurement very difficult. However, there is also an important movement in car lots of live stock, fresh fish, fruit, vegetables and other perishable commodities.

The amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting express matter, are shown in Table XVI under the heading "Express Privileges."

TABLE XVI

MILEAGES OPERATED, REVENUES AND EXPENSES OF EXPRESS COMPANIES, 1942-45

Year or Company	*Mileages Operated*[1]	*Gross Earnings*	*Operating Expenses*	*Express Privileges*	*Net Operating Revenues*
	No.	$	$	$	$
1942	52,824	25,725,512	13,391,508	11,388,477	945,527
1943	52,670	32,875,971	15,824,160	15,323,905	1,727,906
1944	50,668	34,357,760	18,856,659	15,301,512	199,589
1945	50,939	37,171,862	20,040,339	16,711,647	419,876
1945					
Canadian National Express ..	24,011	18,897,028	10,279,879	8,379,844	237,305
Canadian Pacific Express ..	21,624	16,855,505	9,104,242	7,603,143	148,120
Northern Alberta Railways ..	928	351,368	151,525	172,228	27,615
Railway Express Agency ..	4,376	1,067,961	504,693	556,432	6,836

[1] Over railways, boat lines and motor-carrier and aircraft routes.

TABLE XVII

BUSINESS TRANSACTED BY EXPRESS COMPANIES IN FINANCIAL PAPER, 1942-45

Description	1942	1943	1944	1945
	$	$	$	$
Money orders, domestic and foreign	84,155,112	96,662,065	101,819,945	101,257,845
Travellers cheques, domestic and foreign ..	1,116,870	1,324,422	1,729,925	2,228,722
"C.O.D." cheques	6,773,454	8,916,597	11,113,936	13,282,676
Telegraphic transfers	112,088	1,571,063	1,229,742	1,300,822
Other forms	980,531	Nil	Nil	Nil
TOTALS ..	93,138,055	108,474,147	115,893,548	118,070,065

ROAD TRANSPORTATION

Since the recent development of highways in Canada has been almost exclusively for the purpose of providing roadbed for motor-vehicle traffic, highways and motor-vehicles are treated as related features of transportation. After an introductory section, which briefly summarises provincial regulations regarding motor-vehicles and motor traffic, the whole subject of road transportation is dealt with under the headings of facilities, finances and traffic, similar to the treatment extended to other forms of transportation.

Provincial Motor—Vehicle and Traffic Regulations

NOTE.—In this Section, it is obviously impossible to include the great mass of detailed regulations in force in each province. Only the more important general information is provided here.

General

The licensing of motor-vehicles and the regulation of motor-vehicle traffic lies within the legislative jurisdiction of the Provincial Governments in Canada. Regulations that are common to all the provinces are summarised here:—

Operator's Licences.—The operator of a motor-vehicle must be over a specified age (usually 16 years) and must carry a licence, obtainable only after prescribed qualification tests and renewable annually. Special licences are required for chauffeurs and, in some cases, for those granted licences who have not reached the specified age.

Motor-Vehicle Regulations.—In general, all motor-vehicles and trailers must be registered annually, with the payment of specified fees, and must carry two registration plates, one on the front and one on the back of the vehicle (one only for the back, in the case of trailers). In order to conserve metal for war purposes, most of the provinces and both territories have issued only one licence plate for each vehicle in recent years. A change of ownership of the vehicle must be recorded with the registration authority. However, exception from registration is granted for a specified period (usually at least 90 days) in any year to visiting private vehicles registered in another province or a State that grants reciprocal treatment. Further regulations require a safe standard of efficiency in the mechanism of the vehicle and of its brakes, and provide that equipment include non-glare headlights, a proper rear light, a satisfactory locking device, a muffler, a windshield wiper, and a rear-vision mirror.

Traffic Regulations.—In all provinces, vehicles keep to the right-hand side of the road. Everywhere motorists are required to observe traffic signs, lights, etc., placed at strategic points on highways and roads. Speed limits, usually of 50 miles per hour, are in effect; slower speeds are always required in cities, towns and villages, in passing schools and public playgrounds, at road intersections, railway crossings, or at other places or times where the view of the highway for a safe distance ahead is in any way obscured. Motor-vehicles must not pass a street car that has stopped to take on or discharge passengers except where safety zones are provided. Accidents resulting in personal injury or property damage must be reported to a provincial or municipal police officer and any driver involved must not leave the scene of accident until he has rendered all possible aid and disclosed his name to the injured party.

Penalties.—These ascend in scale from small fines for minor infractions of any of the regulations to a suspension of the operator's driving permit, impounding of the car, or imprisonment for serious infractions, recklessness, driving without an operator's licence, and especially for attempting, while intoxicated, to operate a motor-vehicle.

There is such a wide variation in the different provinces regarding the basis of licences and fees, the regulation of public commercial vehicles, details of traffic rules, speed, and the use of motor-vehicles, that it is impossible even to outline them satisfactorily in the space available here. For the most important features see the annual bulletin published by the Dominion Bureau of Statistics.

Safety Responsibility Legislation.—Manitoba was the first province to adopt safety responsibility measures. In 1945, the Manitoba Legislature passed new legislation amending the Highway Traffic Act, under which, generally speaking if a motorist is unable to furnish proof of financial responsibility by insurance or otherwise at the time of an accident, whether the accident was his fault or not, drastic penalties ensue. These penalties include impoundment of the motor-vehicle and suspension of driver's licence and motor-vehicle registration. The objects of the law are: (1) To place the victim of an irresponsible, uninsured motorist in as good a position as he would have been in if the motorist had been insured; and (2) to promote safe driving by emphasising by suspension of licence, etc., the fact that unsafe driving or irresponsible driving carries drastic, immediate and automatic penalties.

At the 1947 session of the Ontario Legislature, the Highway Traffic Act was amended so as to provide for the automatic suspension of the driver's licence and motor-vehicle permit of: (1) Every person convicted of any offence under the Act if any personal injury or property damage occurs in connection therewith; (2) Every person convicted of any offence under the Act if the penalty imposed includes suspension of driver's licence or owner's permit; (3) Every person convicted of a criminal offence involving the use of a motor-vehicle.

The suspension remains effective until proof of financial responsibility is filed. The object of this law is to encourage safe driving by imposing this additional penalty on persons convicted of offences arising out of motor-vehicle accidents. Provision is also made for the forfeiture to the Crown of a motor-vehicle operated while the permit for same is under suspension. These amendments became effective July 1, 1947.

The Act was also amended to require the payment of all judgments arising out of motor-vehicle accidents either for personal injuries or property damage up to a maximum of $5,000 for one person or $10,000 for two persons and $1,000 for property damage arising out of one accident. If judgments are not satisfied by the judgment debtors, provision is made for their payment out of an Unsatisfied Judgment Fund to be created. The judgment debtor is then prohibited from holding a driver's licence or having a motor-vehicle registered in his name until the judgment debtor repays in full to the Fund the amount paid out, together with interest at 4 per cent from the date of such payments and also files proof of ability to satisfy a judgment for $11,000 which may arise out of any future accidents. This part of the Act is to be brought into effect by proclamation.

The authorities responsible for the administration of motor-vehicles and the legislation governing vehicles and traffic are given below for each province.

Prince Edward Island

Administration.—The Provincial Secretary, Charlottetown. *Legislation.*—The Highway Traffic Act (c. 2, 1936) and amendments.

Nova Scotia

Administration.—Motor Vehicle Branch, Department of Highways and Public Works, Halifax. *Legislation.*—The Motor Vehicle Act (c. 6, 1932) and amendments, and the Motor Carrier Act (c. 78, R.S.N.S. 1923) as amended.

New Brunswick

Administration.—Motor Vehicle Division, Department of Public Works, Fredericton. *Legislation.*—The Motor Vehicle Act (c. 20, 1934) and amendments.

Quebec

Administration.—Motor Vehicle Bureau, Provincial Revenue Offices, Treasury Department, Quebec. *Legislation.*—The Motor Vehicle Act (c. 142, R.S.Q. 1941) and amendments.

Ontario

Administration.—Motor Vehicles Branch, Department of Highways, Toronto. *Legislation.*—The Highway Traffic Act (c. 288, R.S.O. 1937) and amendments. The Public Vehicle Act (c. 289, R.S.O. 1937) and the Commercial Vehicle Act (c. 290, R.S.O. 1937).

Manitoba

Administration.—Provincial Treasurer, Winnipeg. *Legislation.*—The Highway Traffic Act (c. 93, R.S.M. 1940) and amendments.

Saskatchewan

Administration.—Treasury Department, Taxation Branch, Highway Traffic Board, Revenue Building, Regina. *Legislation.*—The Vehicles Act (c. 98, 1945).

Alberta

Administration.—Motor Vehicle Branch, Department of the Provincial Secretary, Edmonton, and Alberta Highway Traffic Board, Edmonton. *Legislation.*—The Vehicles and

Highway Traffic Act (c. 275, R.S.A. 1942) and amendments, the Public Service Vehicles Act (c. 276, R.S.A. 1942), and Rules and Regulations. The Vehicles and Highway Traffic Act is administered by the Department of the Provincial Secretary, and the Public Service Vehicles Act by the Alberta Highway Traffic Board, Department of Public Works.

British Columbia

Legislation.—The Motor Vehicle Act (c. 195, R.S.B.C. 1936), and the Highway Act (c. 116, R.S.B.C. 1936) and amendments thereto, as well as the Motor Carrier Act (c. 36, R.S.B.C. 1939). *Administration.*—Enforcement of the Motor Vehicle Act, the Highway Act and the Motor Carrier Act is vested in the Commissioner of Provincial Police, Victoria, while the Highway Act is administered by the Minister of Public Works, the Motor Carrier Act by the Public Utilities Commission, and the Motor Vehicle Act by the Superintendent of Motor Vehicles.

Yukon

Administration.—Territorial Secretary, Dawson, Yukon. Information regarding regulations may also be obtained from the Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, No. 14, 1914, and amendments.

Northwest Territories

Administration.—Director, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, assented to Mar. 26, 1941, and amendments.

ROADS AND VEHICLES

Roads and Highways

With the rapid increase in the percentage of motor-car owners to population up to 1941, the demand for improved roads has become more and more insistent since the War of 1914-18. Furthermore, the advantages to be gained by attracting touring motorists have been a powerful incentive to governing bodies to improve trunk roads and scenic highways within their jurisdictions. One sphere where the motor-car and truck has been of special economic advantage has been in rural areas. As a result, according to the Census of 1941, there was one motor-vehicle for every 1·8 farms. This widespread rural ownership of automobiles and trucks has, in turn, brought about an improvement of secondary rural roads.

The table of road mileages below includes all roads under provincial jurisdiction and local roads in the Maritime Provinces and Ontario and estimates of local roads in the four western provinces. There are great stretches of country in the northern portions of Quebec, Ontario, the Prairie Provinces and British Columbia with very few people and very few roads, but the southern portions are well supplied. The Trans-Canada Highway provides a strategic link between Eastern and Western Canada that permits motorists to traverse the Dominion without entering United States territory.

The Alaska Highway.—The Alaska Highway, a 1,600-mile roadway, 24 to 36 feet wide, extends from Fort St. John, B.C.,* through Whitehorse, to Fairbanks, Alaska. It was virgin territory, and a pioneer air route, in the spring of 1942; on Nov. 20, 1942, it was officially opened for wheeled traffic. About 10,000 United States engineer troops and 4,000 civilians, of whom half were Canadians, hewed their way through the bush, bridged the rivers, overcame mountain grades and surfaced a roadbed, to permit a continuous journey by car. The maximum grade in hill country is 10 per cent; in foothill country, 5 per cent. The Dominion Government supplied the right-of-way and

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* Dawson Creek, about 30 miles to the southwest, is the railhead from which supplies are trucked in to Fort St. John. The existing road between Dawson Creek and Fort St. John has been improved and to all intents and purposes forms part of the main highway.

TABLE XVIII

CLASSIFICATION OF HIGHWAYS, BY PROVINCES, 1945

NOTE.—The date for which the mileage was reported is indicated for each province. The figures for Canada are the sums of the mileages so reported. Urban streets are not included in the figures. Dashes indicate that no mileages were reported under corresponding stub items.

Classication	P.E.I.[1]	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	*Total*
	Mar. 31, 1945	*Nov.* 30, 1945	*Oct.* 31, 1945	*Mar.* 31, 1946	*Mar.* 31, 1946	*Apr.* 30, 1946	*Apr.* 30, 1946	*Mar.* 31, 1946	*Mar.* 31, 1945	
	miles	*miles*	*miles*	*miles*	*miles*	*miles*	*miles*	*miles*	*miles*	*miles*
Surfaced Road—										
Portland cement concrete ..	4	7	—	333	2,091	37	—	—	41	2,513
Bituminous pavement	205	902	—	3,176	2,212	—	—	90	114	6,699
Bituminous surface	—	33	977	974	3,406	509	132	644	1,452	8,127
Gravel—crushed stone ..	242	6,048	7,681	18,703	49,425	8,385	8,529	6,922	8,056	113,991
Other surfaces	—	—	—	—	—	—	76	—	47	123
TOTALS, SURFACED ROAD ..	451	6,990	8,658	23,186	57,134	8,931	8,737	7,656	9,710	131,453
Non-Surfaced Road										
Improved earth	2,352	3,207	2,670	—	9,058	8,171	72,031	14,967	9,765	122,221
Other earth roads	903	4,907	984	16,590	6,809	74,236[2]	132,118	59,114	2,680	298,341
TOTALS, NON-SURFACED ROAD ..	3,255	8,114	3,654	16,590	15,867	82,407	204,149	74,081	12,445	420,562
GRAND TOTALS ..	3,706	15,104	12,312	39,776	73,001	91,338	212,886	81,737	22,155	552,015

[1] 1944 mileage.

[2] Includes road allowances.

TABLE XIX
MOTOR-VEHICLES REGISTERED, BY PROVINCES, 1942-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total[1]
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1942	7,537	58,872	37,758	222,622	715,380	93,147	130,040	125,482	132,893	1,524,153
1943	8,032	59,194	40,205	222,676	691,615	93,494	133,839	127,559	134,691	1,511,845
1944	8,412	57,933	39,570	224,042	675,057	93,297	140,992	127,416	135,090	1,502,567
1945	8,835	56,699	41,577	228,681	662,719	92,758	140,257	130,153	134,788	1,497,081

[1] Totals include registrations in Yukon.

exempted all shipments of construction equipment and material from customs duty and the United States Government carried out the work. On Apr. 3, 1946, the Canadian section of the Highway, from Edmonton to the Alaska border, together with the Northwest Staging Route airfields, telephone system and other defence projects were taken over by Canada from the United States under agreement between the two countries.

The Northwest Highway System, as it is now called will, for the present, be operated by the Canadian Army, but will be opened for civilian traffic as soon as possible.

Statistics of urban streets have been collected since 1935 from cities and principal towns; the small municipalities omitted would increase the totals very little. For 1945 the total number of miles of street reported was 14,245, composed of: 3,350 miles of bituminous pavements; 880 miles of portland cement concrete; 2,027 miles of bituminous surfaces; 3,274 miles of gravel and crushed stone; and 399 miles of other surfaces; making a total of 9,930 miles of surfaced streets and 4,315 miles of earth roads. These figures for urban streets or roads are not included in the table of highway mileage.

Motor-Vehicles

Registration.—Automobiles were registered in Canada for the first time in 1904 and Ontario was the only province to issue licences in that year. New Brunswick began registering cars in 1905; Quebec, Saskatchewan and Alberta in 1906; British Columbia in 1907; Manitoba in 1908; Nova Scotia in 1909; Prince Edward Island in 1913 and Yukon in 1914.

In 1905 only 565 motor-vehicles were registered, by 1915 the number had risen to 95,284, and by the end of the next decade to 724,048. A peak of 1,572,784 was reached in 1941, including 1,279,536 passenger cars, 278,771 commercial cars and 14,477 motorcycles. During the war years the number of commercial cars continued to increase’ advancing to 322,829 in 1945, including 315,606 trucks, 5,988 buses and 1,235 miscellaneous vehicles; motorcycles were slightly less at 14,194. Passenger cars, however, declined each year to 1,160,058 in 1945, due to restrictions on the manufacture of cars for private use, tires and gasoline, inability to secure repair parts and shortage of garage mechanics. The full effect of the lifting of wartime restrictions may not be felt for some time, since material shortages have continued to keep down production.

Revenues from motor-vehicle licences, operators' permits, etc., amounted to $32,000,000 in 1945 compared with $28,000,000 in 1939 and $13,400,000 in 1925.

TABLE XX
TYPES OF MOTOR-VEHICLES REGISTERED, BY PROVINCES, 1945

Province	Passenger Cars[1]	Commercial Cars, Trucks, etc.[2]	Buses	Motor-cycles	Total[1],[2]
	No.	No.	No.	No.	No.
Prince Edward Island	6,744	2,043	8	40	8,835
Nova Scotia ..	40,314	15,449	350	586	56,699
New Brunswick ..	28,794	12,303	221	259	41,577
Quebec	171,240	52,978	1,629	2,834	228,681
Ontario	555,461	99,618	1,895	5,745	662,719
Manitoba ..	69,268	22,670	126	694	92,758
Saskatchewan ..	96,268	42,956	261	772	140,257
Alberta	92,334	36,262	815	742	130,153
British Columbia	99,421	32,185	676	2,506	134,788
Yukon	214	377	7	16	614
TOTALS ..	1,160,058	316,841	5,988	14,194	1,497,081

[1] Includes taxis.

[2] Includes service cars, tractors, etc.

Apparent Consumption of Automobiles

The apparent consumption of automobiles in Canada in any year may be computed by deducting the number exported from the sum of the production and imports.

TABLE XXI
APPARENT CONSUMPTION OF AUTOMOBILES, 1939-45

Year	Cars Made for Sale in Canada		Imports		Re-Exports of Imported Cars		Apparent Supply	
	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial
	No.	No.	No.	No.	No.	No.	No.	No.
1939 ..	75,145	24,058	16,585	1,699	207	13	91,523	25,744
1940 ..	94,633	53,169	15,386	1,633	145	10	109,874	54,792
1941 ..	81,943	76,627	2,672	1,036	26	Nil	84,589	77,663
1942 ..	8,596	93,903	327	718	9	2	8,914	94,619
1943 ..	Nil	79,290	21	795	1	163	20	79,922
1944 ..	,,	66,013	35	3,249	5	33	30	69,229
1945 ..	1,866	47,459	236	1,855	3	19	2,099	49,295

FINANCES OF ROAD TRANSPORTATION

The cost of road transportation to the people of Canada may be summarised under the following headings: expenditures on roads and highways; expenditures of individuals and corporations on owned motor-vehicles; expenditures for freight and passenger services rendered by motor-vehicle public carriers such as taxi, bus and motor-transport companies; and expenditures on garages, service stations, etc. Since expenditures on roads and highways are made almost entirely by governmental bodies, fairly complete statistics are available regarding them but, owing to the tremendous number of individuals and organisations that would have to be canvassed and the difficulties involved, complete statistics are not available under the other headings.

Expenditures on Road and Highways

Roads in Canada, except in the Territories and the National Parks are under the jurisdiction of provincial and municipal authorities. During the war years, capital expenditures on highways, bridges and ferries have shown a decided drop as compared with the years immediately preceding the War. On the other hand, maintenance expenditures have increased considerably.

Provincial Government Revenues from Motor-Vehicles

The taxation of motor-vehicles, garages, chauffeurs, etc., is an important source of Provincial Government income. In every province licences or permits, duly issued by the provincial authorities, are required for: motor-vehicles of all kinds, trailers, operators or drivers, paid chauffeurs, dealers, garages and gasoline and service stations. A sales tax on gasoline is also levied by each province and to Mar. 31, 1947, there was also a Dominion tax of 3 cents but this was withdrawn on that date and for the most part provincial taxes were increased to absorb the Dominion rate. The rates at present in effect are: for each of the three Maritime Provinces 13 cents; Quebec and Ontario 11 cents; Manitoba 9 cents; Saskatchewan 10 cents; Alberta 9 cents; British Columbia 10 cents and Yukon 3 cents. The more important sources from which provincial revenues from motor-vehicles are derived are shown

TABLE XXII

CAPITAL, MAINTENANCE AND GENERAL EXPENDITURES ON RURAL HIGHWAYS, BRIDGES AND FERRIES IN CANADA, BY PROVINCES, 1943-45

NOTE.—Provincial expenditures are for their respective fiscal years.

Item and Province	1943	1944	1945
	$	$	$
Capital Expenditures—			
Prince Edward Island	141,175	388,538	486,759
Nova Scotia	192,109	445,349	554,078
New Brunswick	795,852	2,845,019	2,820,685
Quebec	10,843,890	13,153,874	13,916,204
Ontario	2,482,488	3,505,222	4,928,485
Manitoba	25,334	118,197	596,680
Saskatchewan	1,733,860	2,067,989	2,346,936
Alberta	1,449,042	2,313,732	2,586,941
British Columbia	7,230,557	6,667,429	3,583,829
TOTALS, CAPITAL ..	24,894,307	31,505,349	32,191,134[2]
Maintenance Expenditures—			
Prince Edward Island	319,079	569,144	680,082
Nova Scotia	2,679,878	3,025,357	3,933,298
New Brunswick	1,697,931	2,684,747	2,950,899
Quebec	8,339,542	8,659,753	10,160,318
Ontario	18,374,484	17,601,135	21,118,003
Manitoba	1,062,455	1,246,130	1,468,625
Saskatchewan	1,071,410	1,202,737	1,420,260
Alberta	1,661,213	1,532,732	4,562,050
British Columbia	2,595,021[1]	1,036,867	2,697,359
TOTALS, MAINTENANCE ..	37,801,013[1]	37,571,893[2]	48,995,515[2]
Plant and General Expenditures—			
Prince Edward Island ..	40,012	139	56,673
Nova Scotia	326,739	323,276	341,948
New Brunswick	56,300	63,978	72,418
Quebec	995,430	1,133,170	1,273,144
Ontario	624,860	507,041	502,955
Manitoba	207,621	248,522	289,683
Saskatchewan	125,048	125,647	145,143
Alberta	9,298	6,473	8,421
British Columbia	14,369	360,696	277,532
TOTALS, PLANT AND GENERAL ..	2,399,677	2,774,099[2]	2,978,108[2]
GRAND TOTALS ..	65,094,997	71,851,341[2]	84,164,757[2]
Dominion-Provincial Distribution of All Expenditures—			
Dominion—net expenditures and subsidies	7,132,612	3,917,448	1,073,581[2]
Provincial—net expenditures and subsidies	52,870,362	62,175,873	73,536,267
Municipal—net expenditures and subsidies	4,626,330	5,514,832	9,441,779
Subsidies from other sources[3] ..	465,693	243,188	113,130

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[1] Includes 1,500 in the Northwest Territories. [2] Includes expenditures in the Northwest Territories. [3] Includes payments from railways *re* elimination of grade crossings, etc.

TABLE XXIII

PROVINCIAL REVENUES FROM THE TAXATION OF THE DISTRIBUTION AND OPERATION OF MOTOR VEHICLES, 1945

Province or Territory	*Passenger Cars*	*Trucks and Buses*	*Motor-cycles*	*Dealer Licences*	*Operator and Chauffeur Licences*	*Tax on Operators of Motor-buses and Trucks*	*Gasoline Tax*[1]	*Total, Including Miscel-laneous Revenue*
	$	$	$	$	$	$	$	$
P. E. Island	104,336	61,423	210	415	6,449	1,870	364,663	541,960
Nova Scotia	752,258	730,026	[2]	6,526	158,051	79,470	2,906,639	4,749,675
New Brunswick	559,991	647,758	1,658	2,208	128,615	23,196	2,101,072	3,492,112
Quebec	3,522,000[3]	2,357,000	12,000	22,000	760,000	73,000	11,461,400	19,325,400
Ontario	4,270,984	3,474,136	6,182	17,055	1,171,916	541,637	26,608,291	36,653,342
Manitoba	860,286	322,913	2,537	6,680	139,126	246,000	2,681,556	4,295,403
Saskatchewan	1,192,362	630,666	4,574	15,525	204,247	12,399	4,390,333	6,813,951
Alberta	1,454,925	839,023	3,514	10,075	209,942	728,050	4,463,196	7,728,422
British Columbia	1,656,772	1,006,831	13,275	8,072	229,737	151,204	4,330,543	7,557,211
Yukon	2,243	4,022	64	Nil	400	Nil	17,268	24,319
TOTALS ..	14,376,157	10,073,798	44,014	88,556	3,008,483	1,856,826	59,324,961	91,181,795

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[1] Includes payment of $10,251,891 Federal Government guarantee of Provincial gasoline tax revenue. [2] Included with miscellaneous. [3] Estimated.

in Table XXIII. Federal Government revenues from import duties, excise and sales taxes are not included.

Motor-Carriers

The lack of statistical information in regard to the increasing amount of passenger and freight traffic on the highways of Canada led to the institution of a census of motor-carriers in 1941. The carriers were divided into two main classes: (1) passenger and (2) freight. Each of these were subdivided into two classes: (*a*) carriers with revenues less then $20,000, and (*b*) carriers with revenues of $20,000 or over. Bus companies handling urban traffic exclusively were compiled as a class. Many street railway systems operate motor-buses, but the statistics of such systems are not included here; they are included in electric railway statistics. Licensed carriers doing highway construction work, building air fields, etc., were excluded from the compilations. Taxi operators and urban delivery trucks also were excluded, except where their operations included inter-urban business. Carriers operating as both passenger and freight carriers were classed as passenger or freight according to the preponderance of the revenue. The passenger revenue of trucking companies and the freight revenue of bus companies were small percentages of their total revenues.

Operators with revenue of less than $8,000 in 1941 were excluded from the 1942 and subsequent compilations. The figures given below are therefore not comparable in all respects with those for 1941.

Road Traffic

Up to the present the motor-vehicle has affected passenger traffic of the steam and electric railways more than freight traffic. This diversion of passenger traffic has been effected largely by the private automobile, although the motor-bus is rapidly becoming more important and now operates between all large centres. The motor-truck also carries a considerable amount of freight.

As explained, certain statistics in regard to motor-carriers are collected, and those relating to freight and passengers carried are presented in Table XXV. Traffic data were not available for the majority of the small operators. Many truck operators failed to report tons of freight carried and others reported only estimates; consequently these data are not very informative. A difficulty in compiling weights, which is quite understandable, is that much traffic was carried on a load basis and not a weight basis. Records of passengers appear to be fairly complete, possibly because tickets were sold and accounted for, and the unit was not so complex as for freight carried.

TABLE XXIV

CAPITAL, REVENUES, EMPLOYEES AND EQUIPMENT OF MOTOR-CARRIERS, 1945

NOTE.—Large freight carriers include those with annual revenues of $20,000 or over; small freight carriers those with annual revenues from $8,000 to $20,000.

Item	*Freight Carriers*		*Passenger Carriers*	*Totals*
	Large	*Small*		
	1945	1945	1945	1945
Carriers .. .. No.	492	357	475	1,324
INVESTMENTS—				
Land, buildings, equipment, etc. .. .. $	25,542,071	2,970,400	30,888,282	59,400,753
REVENUE—				
Freight .. .. $	41,015,054	4,403,092	547,038	45,965,184
PASSENGER—				
Inter-city and rural .. .. $	183,997	11,683	29,467,098	29,662,778
City .. .. $	Nil	Nil	9,240,049	9,240,049
Miscellaneous .. .. $	1,703,241	193,900	1,392,338	3,289,479
TOTALS, REVENUE .. $	42,902,292	4,608,675	40,646,523	88,157,490
Working proprietors .. .. .. No.	279	309	296	884
EMPLOYEES—				
As at July 15 .. .. No.	11,780	1,133	6,216	19,129
As at Dec. 15 .. .. ,,	11,671	1,129	6,931	19,731
TOTAL WAGES .. $	17,200,932	1,281,109	11,287,000	29,769,041
EQUIPMENT—				
Trucks .. .. No.	5,233	1,049	204	6,486
Tractor, semi-trailer units .. .. .. ,,	1,939	89	35	2,063
Trailers .. .. ,,	1,077	54	23	1,154
Buses .. .. ,,	24	9	3,289	3,322

TABLE XXV

TRAFFIC CARRIED BY MOTOR-CARRIERS, 1944 AND 1945

NOTE.—Large freight carriers include those with annual revenues of $20,000 or over; small freight carriers those with annual revenues of from $8,000 to $20,000.

Item		Freight Carriers		Passenger Carriers	Totals
		Large	Small		
		1945	1945	1945	1945
Passengers Carried—					
REGULAR ROUTES—					
Inter-city and rural	No.	474,613	14,714	93,738,719	94,228,046
City	„	Nil	Nil	141,344,895	141,344,895
SPECIAL AND CHARTERED SERVICE—					
Inter-city and rural	„	14,530	Nil	3,972,792	3,987,322
City	„	Nil	„	297,602	297,602
TOTALS, PASSENGERS CARRIED ..	„	489,143	14,714	239,354,008	239,857,865
Totals, Freight Carried—Inter-city and Rural ..	*ton*	8,003,553	2,739,093	110,985	10,853,631

Gasoline Consumption

All provinces require retail sales of gasoline to be reported and a tax is imposed on all gasoline consumed by motor-vehicles using the highways and streets and also on that used for an increasing number of other purposes. However, the taxable gasoline is still largely consumed by motor-vehicles and indicates in a general way the increase or decrease in their use. Net sales are the differences between the total or gross sales reported and the quantities on which the tax is refunded in whole or in part, or on which the tax is not imposed at the time of sale.

Figures to the end of 1940 show a steady increase in gasoline sales since depression years. Later figures are, of course, materially affected by the conservation measures taken in 1941, and the system of gasoline rationing effective from April 1942 to August, 1945.

Waterways

The Canada Shipping Act.—Legislation regarding all phases of shipping was consolidated under the Canada Shipping Act (c. 44, 1934). The Act was a sequel to the passage of the Statute of Westminster in 1931, under which the Parliament of Canada accepted full responsiblity for the regulation of Canadian shipping. The Canada Shipping Act is a comprehensive piece of legislation and constitutes, in fact, the incorporation in the shipping law of Canada of features of international agreements and of British and previous Canadian legislation.

Shipping

Since all waterways, including canals and inland lakes and rivers, are open upon equal terms, except in the case of the coasting trade, to the shipping of all countries of

TABLE XXVI

SALES OF GASOLINE, BY PROVINCES, 1940-45

Province	1940	1941	1942	1943	1944	1945
	gal.	*gal.*	*gal.*	*gal.*	*gal.*	*gal.*
P. E. Island	4,094,203	5,174,759	6,628,067	7,881,403	9,295,639	4,715,743
Nova Scotia	34,961,212	41,354,887	40,885,976	42,465,349	43,462,061	37,727,413
New Brunswick	24,829,924	26,288,682	25,499,817	27,255,758	28,077,021	29,175,358
Quebec	148,499,644	165,839,507	149,918,783	147,048,452	178,879,214	168,304,460
Ontario	371,903,633	410,711,924	343,811,002	309,487,964	315,976,426	323,814,957
Manitoba	48,893,738	54,212,671	58,566,931	63,375,584	70,399,123	56,119,024
Saskatchewan	101,101,143	112,779,554	101,808,034	104,175,400	119,840,189	118,463,733
Alberta	83,808,689	93,068,504	97,502,012	114,969,882	120,159,267	102,753,583
British Columbia	65,198,108	70,995,551	73,186,336	86,932,371	84,383,083	74,621,447
Totals, Gross Sales ..	883,290,294[1]	980,426,039	897,806,958	903,592,163	970,472,023	915,695,718
Refunds and exemptions	180,573,998[1]	233,017,682	286,087,504	373,747,304	395,615,510	253,079,186
Totals, Net Sales ..	702,716,296[1]	747,408,357	611,719,454	529,844,859	574,856,513	662,616,532

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[1] Exclusive of 2,975,000 gal. of aviation gasoline purchased and placed in storage by the Federal Government.

TABLE XXVII

VESSELS ON CANADIAN SHIPPING REGISTRY, BY PROVINCES, AS AT DEC. 31, 1942-44

Province or Territory	1942		1943		1944	
	No.	*Net Tons*	*No.*	*Net Tons*	*No.*	*Net Tons*
P. E. Island	86	5,157	86	5,161	85	4,925
Nova Scotia	2,082	57,369	2,233	54,673	2,371	52,274
New Brunswick	872	34,629	882	31,564	915	31,421
Quebec	1,175	422,926	1,226	577,510	1,326	896,795
Ontario	1,226	370,645	1,208	355,282	1,208	349,223
Manitoba	97	9,813	106	11,378	112	11,441
Saskatchewan	2	201	2	201	2	201
British Columbia	3,294	304,482	3,316	308,276	3,335	294,759
Yukon	18	5,025	15	4,259	15	4,259
TOTALS	8,852	1,210,247	9,074	1,348,304	9,369	1,645,298

the world, the commerce of the Dominion is by no means entirely dependent upon Canadian shipping. However, a large part of the inland and coast-wise traffic is carried in ships of Canadian registry.

Canadian Registry.—Under Part I of the Canada Shipping Act, every ship that falls under the definition of " British Ship " given in Sect. 6 of the Act and is controlled as to management and use in Canada must, unless registered elsewhere in the Empire, be registered in Canada. An exception is made in the case of ships not exceeding 10 tons register and engaged solely in coastal or inland navigation. A ship (whatever her qualification for British registry) that is not registered in any part of His Majesty's dominions, is not entitled to the privileges accorded to British ships. Vessels about to be built *may* be recorded, and vessels being built or equipped *must* be recorded, by a registrar of British ships under the Act.

Aids to Navigation and Miscellaneous Works

Included under this heading are the lighthouses and the whole system of marine danger signals on the east and west coasts of Canada, on Hudson Bay and Strait, the St. Lawrence River and Gulf, the inland rivers and lakes, and at the entrances to harbours—a very extensive system designed to provide safe navigation in all Canadian waters. In addition, a pilotage service is maintained in waters where navigation is difficult. As a further aid to safe navigation, there are chains of radio signals and direction-finding stations.

Aids to navigation, excepting very minor ones, are listed in three annual publications of the Department of Transport covering the Atlantic Coast, Inland Waters and Pacific Coast, respectively.

A great deal has been done to improve navigable waters by dredging in channels and harbours, by the removal of obstructions, and by the building of remedial works to maintain or control water levels. Probably the largest task of this nature has been the St. Lawrence River Ship Channel. An extensive floating plant is in service to maintain and improve the deep-water channel from Montreal to the sea for ocean-going shipping. Incidental to these developments of navigable waters are works to guard shorelines and prevent erosion, and also the control of roads and bridges that cross navigable channels. In order to prolong the season of navigation in important waters that freeze over in winter, ice-breaking operations are carried on at both the beginning and end of winter. This is particularly the case in connection with sea-going shipping from Montreal: these operations are primarily intended to prevent flood conditions during the spring ice break-up.

TABLE XXVIII

DURATION OF THE SEASON OF OPEN NAVIGATION ON THE ST. LAWRENCE SHIP CHANNEL, 1942-46

Year	*Channel Open, Quebec to Montreal*[1]	*First Arrival from Sea, Montreal Harbour*	*Last Departure for Sea Montreal Harbour*
1942	Apr. 17	May 2	Dec. 16
1943	„ 29	„ 24	„ 13
1944	„ 20	Apr. 21	„ 9
1945	„ 1	„ 9	„ 3
1946	„ 1	„ 12	„ 18

[1] " Channel Open " means the route can be navigated although there may be floating ice in the river.

Canals

Before the period of extensive railway construction, which commenced for Canada in the 1850's, the water routes, more especially the St. Lawrence, the Great Lakes, and the Ottawa River, were the chief avenues of transportation. These routes were interrupted at certain points, necessitating portages and, to eliminate the toil of unloading, transporting and reloading at the portages, canals were constructed.

The earliest mention of canals in Canada is in connection with the Lachine Canal, begun by early French settlers in 1700. Only after the conquest of Canada by the British, however, were improvements of the main water routes made. In the early part of the nineteenth century increased internal and foreign trade and the introduction of steam navigation resulted in more attention being given to this work. Although some of the early canals were constructed primarily for military purposes, they soon became essential to the commercial life of the country. However, since the development of railways in Canada and, even more, since the growth of motor-vehicle traffic, the canals, with the exception of those on the Great Lakes-St. Lawrence River Route, are playing a less important part in the transportation activities of the country.

The principal canals of Canada are under the jurisdiction of the Federal Department of Transport and each is accessible from the Atlantic Ocean. They serve six routes: (1) Montreal to Port Arthur and Fort William, via the St. Lawrence River and Great Lakes; (2) Montreal to the International Boundary near Lake Champlain, via the Richelieu River; (3) Montreal to Ottawa, via the Ottawa River; (4) Ottawa to Perth and Kingston, via the Rideau and Cataraqui Rivers; (5) Trenton, at the mouth of the Trent River on Lake Ontario, to the mouth of the Severn River on Lake Huron; and (6) St. Peters, Nova Scotia, on the Atlantic Ocean, to the Bras d'Or Lakes. The aggregate length of these six routes is 1,844 miles, the total of actual canal being 535 miles.

The names of the various canals along these routes, their locations and lengths, together with the number and dimensions of the locks thereon and other information may be found in the bulletin " Canals of Canada," published by the Department of Transport. A table showing the length and lock dimensions of canals as at the end of 1941 will be found at p. 583 of the 1941 edition of the Year Book.

Under the jurisdiction of the Federal Department of Public Works are the St. Andrews Lock (length, width and draft, respectively, 215, 45 and 17 feet) at Selkirk on the Red River, Man., and the lock at Poupore, Que. There are also a few small isolated locks, each controlled under the authority of the province in which it is situated.

Harbours

Water transportation cannot be studied with any degree of completeness without taking into consideration the co-ordination of land and water transportation at many of the ports. Facilities provided to enable interchange movements include the necessary docks and wharves, some for passenger traffic but most of them for freight, warehouses for the handling of general cargo, and special equipment for such bulk freight as lumber, coal, oil, grain, etc. Facilities may include cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil-storage tanks and, in the chief harbours, dry-dock accommodation.

Eight of the principal harbours of Canada are administered by the National Harbours Board. Seven other harbours come under the supervision of the Department of Transport and are administered by commissions that include municipal as well as Federal Government appointees. In addition, there are about 300 public harbours coming under the direct supervision of the Department of Transport of which 131 are in charge of harbour masters.

At most ports, in addition to the harbour facilities operated by the National Harbours Board or other operating commission, there are dock and handling facilities owned by private companies such as railway, pulp and paper, oil, sugar industries, etc. At a number of ports there are also graving docks which are dealt with separately.

National Harbours Boards.—The Board is responsible for the administration and operation of the following properties (representing a capital investment of approximately $225,000,000): port facilities such as wharves and piers, transit sheds, grain elevators, cold-storage warehouses, terminal railways, etc., at the harbours of Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill; grain elevators at Prescott and Port Colborne; and the Jacques Cartier Bridge at Montreal and the Second Narrows Bridge at Vancouver.

Public Harbours and Harbour Masters.—As stated above, there are 300 public harbours in Canada, created by proclamation under Part X of the Canada Shipping Act, 1934. These harbours are under the jurisdiction of the Minister of Transport and are administered under rules and regulations approved by the Governor in Council. Harbour masters have been appointed by the Minister of Transport for 131 of these harbours, their remuneration being made from fees levied on vessels under the terms of the Act.

Graving Docks.—The Department of Public Works of the Federal Government has constructed five dry docks. The dock at Kingston, Ont., is under lease to the Kingston Shipbuilding Company, while the old Esquimalt dry dock was temporarily transferred to the Department of National Defence on Nov. 1, 1934. This transfer is to be effective until such time as the dock is commercially required, when it will be returned to the control of the Department of Public Works. The large dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided into two parts and

TABLE XXIX

FACILITIES OF SIX OF THE PRINCIPAL HARBOURS, AS AT DEC. 31, 1946

NOTE.—The facilities include those under the control of other agencies as well as those of the National Harbours Board at these ports.

Item		*Halifax*	*Saint John*	*Quebec*	*Three Rivers*	*Montreal*	*Vancouver*
Minimum depth of approach channel	ft.	50	30	30	32·5	32·5	35
Harbour railway	*miles*	31	63	22	5	60	75
Piers, wharves, jetties, etc. ..	*No.*	46	20	36	3	105	28
Length of berthing	*ft.*	33,416	15,175	32,505	8,690	51,060	31,436
Transit-shed floor space	*sq. ft.*	1,236,804	812,000	743,642	173,600	2,063,033	1,415,514
Cold-storage warehouse capacity ..	*cu. ft*	1,655,350	900,000	500,000	Nil	2,909,210	1,312,104
GRAIN ELEVATORS—							
Capacity	*bu.*	2,200,000	3,000,000	4,000,000	2,000,000	15,162,000	18,716,500
Loading rates	*bu. per hr.*	75,000	150,000	90,000	32,000	400,000	312,000
Floating crane capacity	*tons*	75	65	75	Nil	75	50
Coal-dock storage capacity ..	,,	111,000	61,000	215,000	300,000	1,380,000	Nil
Oil-tank storage capacity	*gal.*	116,303,000	9,179,510	26,280,000	Nil	30,000,000	96,339,592

TABLE XXX

DIMENSIONS OF GRAVING DOCKS OWNED BY THE FEDERAL GOVERNMENT

Location	*Length*	*Width at—*			*Depth of Water on Sill*	*Rise of Tide*	
		Coping	*Bottom*	*Entrance*		*Spring*	*Neap*
	ft.	*ft.*	*ft.*	*ft.*	*ft.*	*ft.*	*ft.*
Lauzon, Que., *Champlain* ..	1,150·0	144·0	105·0	120·0	40·0 H.W.	18	13·3
Lauzon, Que., *Lorne* ..	600·3	100·0	59·5	62·0	25·7 H.W.	18	13·3
Esquimalt, B.C. (old dock) ..	450·6[1]	90·0	41·0	65·0	28·8 H.W.[2]	7 to 10	3 to 8
Esquimalt, B.C.	1,173·8	149·0	126·0	135·0	40·0 H.W.	7 to 10	3 to 8
Kingston, Ont.	353·5	79·0	47·0	55·0	14·6 L.W.	—	—

[1] Face of caisson to vertical face at head, 481·0 ft.; length of pad on which keel blocks rest, 403·5 ft. [2] Over keel blocks at H.W. 10 ft. tide, 26·1 ft.

TABLE XXXI

DIMENSIONS AND COST OF GRAVING DOCKS SUBSIDISED UNDER THE DRY DOCKS SUBSIDIES ACT, 1910

Location	*Length*	*Width*	*Depth Over Sill*	*Total Cost*	*Subsidy*
	ft.	*ft.*	*ft.*	$	
Collingwood No. 1, Ont.[1]	518·3	59·8	13·0	500,000	3 p.c. for 20 years
Collingwood No. 2, Ont.[1]	410·0	95·0	16·0	306,965	3 p.c. for 20 years
Port Arthur, Ont.[1]	701·0	77·5	16·2	1,258,050	3 p.c. for 20 years
Montreal, Que. (floating dock), *Duke of Connaught*	601·0	100·0	38·0	3,000,000	3½ p.c. for 35 years
Prince Rupert, B.C. (floating dock)[1] ..	600·0	100·0	32·0[2]	2,199,168	3½ p.c. for 35 years
Saint John, N.B.	1,157·8	131·5	40·3	5,500,000	4½ p.c. for 35 years
North Vancouver, B.C. (floating dock) ..	556·4	98·0	28·0[3]	2,500,000	4½ p.c. for 35 years

[1] Subsidy payments have been completed. [2] 28 ft. over blocks. [3] Over sill (H.W.).

were built at a cost of approximately $3,850,000 each. Under the Dry Dock Subsidies Act (9-10 Edw. VII, c.17, 1910), several docks have been subsidised by payments of 3 to 4½ per cent per annum on the original cost for a given number of years, as shown in Table XXXI.

Marine Services and Operations of the Federal Government

The services covered by this sub-section are those dealing with steamship inspection, pilotage service, sea-faring personnel and accidents to shipping, and the operations are those of the Canadian Government Merchant Marine, and the Canadian National (West Indies) Steamships.

Pilotage.—This service functions under the provisions set forth in Part VI of the Canada Shipping Act, 1934. Qualified pilots may offer their services to the stranger in local and confined waters. At the same time, pilotage might also be considered as a method of insurance.

There are 42 pilotage districts in Canada, 9 of which (Sydney, Bras d'Or Lakes, Halifax, Saint John, Quebec, Montreal, St. Lawrence-Kingston-Ottawa, Churchill and British Columbia) are under the Minister of Transport as pilotage authority. The other districts function under local pilotage authorities appointed by the Governor in Council under the provisions of the Canada Shipping Act.

Table XXXII shows, by major ports, the number and aggregate tonnage of ships using pilots during the fiscal year 1945-46. Corresponding statistics are not available for the St. Lawrence-Kingston-Ottawa district.

TABLE XXXII

PILOTAGE SERVICE BY DISTRICTS, YEAR ENDED MARCH, 1946

District	1946	
	Ships	*Tonnage*
Bras d'Or, N.S.	12	2,571
Sydney, N.S.	2,220	4,300,214
Saint John, N.B.	1,405	3,532,965
Halifax, N.S.	3,269	10,819,247
Quebec, Que.	2,766	8,050,185
Montreal, Que.	4,872	9,757,632
British Columbia	2,138	8,332,026
Churchill, Man.	1	1,503

TABLE XXXIII

FINANCIAL STATISTICS OF CANADIAN NATIONAL (WEST INDIES) STEAMSHIPS, LTD., 1942-46

Year	*Operating Revenues*	*Operating Expenses*	*Operating Net*	*Depreciation*	*Interest*	*Book Loss or Surplus*
	$	$	$	$	$	$
1942	5,600,496	4,220,219	+1,380,277	160,634	816,701	+ 273,880
1943	4,492,189	2,949,216	+1,542,973	239,363	813,073	+ 438,837
1944	5,378,059	3,160,568	+2,217,491	243,158	651,246	+1,271,387
1945	4,412,252	2,569,626	+1,842,626	279,466	612,999	+1,116,086
1946	6,669,129	4,671,148	+1,997,981	288,092	596,499	+1,302,052

Canadian Government Merchant Marine

The original fleet of the Canadian Government Merchant Marine, Ltd., consisted of 66 vessels with a total deadweight tonnage of 391,212. The original cost of the fleet was $79,661,921 and the capital loss thereon was $74,239,356, the total capital recovery of $5,422,565 being made up as follows: (1) the sale of 56 vessels for $2,378,018; (2) the proceeds of insurance on 4 vessels lost, amounting to $2,111,475; (3) the sale of 6 vessels to the Canadian National (West Indies) Steamships, Ltd., for $933,072.

The charter of the Canadian Government Merchant Marine, Ltd., and its susbsidiary companies, although inactive since 1936, had not been surrendered and in 1940 the Company was reconstituted and is operating on behalf of the Canadian Government certain ships seized in prize and either requisitioned for use by the Canadian Government or condemned by the Court.

Canadian National (West Indies) Steamships

In conformity with the Canada-West Indies Trade Agreement Act of 1926 (16-17 Geo. V, c. 16), the Federal Government has provided direct steamship services to the West Indies through the medium of Canadian National (West Indies) Steamships, Ltd.

Shipping Subsidies

The figures given in Table XXXIV represent the amounts paid in connection with contracts made under statutory authority by the Department of Trade and Commerce for trade services, including the conveyance of mails.

WATER TRAFFIC AND SERVICES

Complete statistics, comparable with those given for the railways, showing all the freight carried by water, are not available. Indeed it would be very difficult to obtain a record of the traffic handled by small independent coasting vessels. However, there is a record of the number and tonnage of ships calling at all ports at which there are customs collectors, of cargoes of vessels trading between Canadian and foreign ports and of all cargoes that pass through the canals.

Shipping

Shipping statistics are compiled from reports collected by customs officers at customs ports: consequently they are affected by customs regulations and include only data for vessels trading in and out of ports at which such officers are employed.

TABLE XXXIV

MAIL SUBSIDIES AND STEAMSHIP SUBVENTIONS, YEAR ENDED MARCH 31, 1946

Service	1946
	$
Pacific Coast Services—	
Prince Rupert, B.C., and Queen Charlotte Islands . .	22,000
Vancouver and northern ports of British Columbia	15,000
Victoria, Vancouver, way ports and Skagway ..	10,000
Victoria and west coast Vancouver Island ..	10,000
Local Services—	
Baddeck and Iona	12,000
Chester and Tancook Island (winter)	2,500
Dalhousie and Miguasha	12,000
Grand Manan and the mainland	33,000
Halifax, Canso and Guysborough	6,944
Halifax, LaHave and LaHave River ports ..	3,000
Halifax, Sherbrooke, Spry Bay and Tor Bay ..	6,500
Halifax and west coast of Cape Breton	6,000
Ile aux Coudres and Les Eboulements	3,500
Ile aux Coudres and Quebec or Lévis	4,000
Mulgrave and Arichat	25,000
Mulgrave, Arichat and Canso	Nil
Mulgrave and Canso	64,000
Mulgrave and Guysborough, calling at intermediate ports	14,000
Murray Bay and north shore (winter service) ..	50,000
Owen Sound and Manitoulin Islands	35,000
Pelee Island and the mainland	11,000
Pictou, Mulgrave and Cheticamp	10,875
Pictou, Souris and the Magdalen Islands ..	61,832
Prescott, Ont., and Ogdensburg, N.Y.	11,640
Prince Edward Island and Newfoundland. . ..	45,000
Prince Edward Island and Nova Scotia ..	37,000
Quebec, Natashquan and Harrington, and other ports on the north shore of the Gulf of St. Lawrence	127,500
Quebec or Montreal and Gaspe, and other ports on the south shore of the Gulf of St. Lawrence . .	90,000
Rimouski, Matane, and the north shore of the Lower St. Lawrence	75,000
Rivière-du-Loup and Tadoussac, and other north-shore ports	21,000
Saint John and Minas Basin ports	10,000
Saint John, Westport and Yarmouth, and other way ports	23,500
Sydney and Bay St. Lawrence, calling at way ports	35,000
Sydney and Bras d'Or Lake ports on the west coast of Cape Breton and Prince Edward Island ..	22,500
Sydney and Whycocomagh	20,500
Yarmouth, N.S. and Boston, Mass.	43,000
Administration expenses	13,981
TOTALS	993,772

For years prior to and including the year ended Mar. 31, 1937, the statistics were summarised by the customs officer at each port and compiled by the Department of National Revenue; for subsequent years, compilations were made by the Dominion Bureau of Statistics. Effective Apr. 1, 1940, each vessel departing from port makes a statistical report which is forwarded to the Bureau and from these reports all compilations of shipping statistics are made.

With this change of procedure, changes have been made in the recording of the data. Cargoes are required to be reported in tons of 2,000 lb. or in tons of 40 cu. ft. Although previous reports did not define the ton, it is quite probable that for many cargoes the long ton of 2,240 lb. was used. Reports are not made now for vessels of less than 10 registered net tons and the tonnage of tugs is the gross ton and not the net ton used for cargo vessels. Fishing vessels are not required by customs regulation to report when operating from certain ports; consequently, the data are not on the same basis as data for cargo vessels.

TABLE XXXV
VESSELS ENTERED AT CANADIAN PORTS 1942-46

Year	*In Foreign Service*[1]		*In Coasting Service*		*Total*	
	No.	*Net Tons Register*	*No.*	*Net Tons Register*	*No.*	*Net Tons Register*
1942	24,066	25,640,763	73,366	43,990,764	97,432	69,631,527
1943	22,901	26,345,562	65,066	40,300,778	87,967	66,646,340
1944	23,786	28,356,681	64,999	43,776,497	88,785	72,133,178
1945	24,431	29,655,984	65,410	48,098,201	89,841	77,754,185
1946	26,461	30,367,071	67,014	45,559,014	93,475	75,926,085

[1] Sea-going and inland international.

TABLE XXXVI
VESSELS ENTERED AT EACH OF THE PRINCIPAL CANADIAN PORTS, 1945

NOTE.—For details of shipping at all ports in Canada, see " Shipping Report " of the Dominion Bureau of Statistics.

Province and Port	*In Foreign Service*[1]		*In Coasting Service*		*Totals*	
	No.	*Net Tons Register*	*No.*	*Net Tons Register*	*No.*	*Net Tons Register*
Prince Edward Island—						
Charlottetown	11	3,384	40	12,196	51	15,580
TOTALS, PRINCE EDWARD ISLAND[2] ..	52	7,316	121	24,754	173	32,070
Nova Scotia—						
Digby	79	145,789	411	668,452	490	814,241
Halifax	583	1,813,671	345	278,837	928	2,092,508
North Sydney	1,264	257,867	1,013	124,091	2,277	381,958
Sydney	412	1,026,820	660	533,826	1,072	1,560,646
Yarmouth	345	20,325	395	30,342	740	50,667
TOTALS, NOVA SCOTIA[2] ..	4,278	3,583,717	5,799	2,165,478	10,077	5,749,195
New Brunswick—						
Campobello	289	16,974	97	15,419	386	32,393
Saint John	424	1,191,852	1,016	1,136,209	1,440	2,328,061
TOTALS, NEW BRUNSWICK[2] ..	5,517	1,428,081	2,098	1,346,431	7,615	2,774,512
Quebec—						
Baie Comeau	12	20,377	595	216,153	607	236,530
Montreal	1,486	3,015,657	2,205	2,323,229	3,691	5,347,886
Port Alfred	133	255,045	370	500,544	503	755,589
Quebec	243	659,893	2,231	1,835,196	2,474	2,495,089
Three Rivers	248	562,749	1,521	1,390,406	1,769	1,953,155
TOTALS, QUEBEC[2] ..	2,355	4,790,462	9,541	7,275,756	11,896	12,066,218

TABLE XXXVI

VESSELS ENTERED AT EACH OF THE PRINCIPAL CANADIAN PORTS, 1945—*cont.*

Province and Port	*In Foreign Service*[1]		*In Coasting Service*		*Totals*	
	No.	*Net Tons Register*	*No.*	*Net Tons Register*	*No.*	*Net Tons Register*
Ontario—						
Amherstburg	517	455,900	94	107,347	611	563,247
Cobourg	635	2,078,549	64	34,749	699	2,113,298
Cornwall	40	42,249	329	386,878	369	429,127
Fort William	521	1,673,234	931	2,142,093	1,452	3,815,327
Hamilton	274	1,168,752	507	521,983	781	1,690,735
Kingston	475	294,820	619	893,568	1,094	1,188,388
Midland	73	233,567	367	1,053,820	440	1,287,387
Port Arthur	486	1,526,414	1,335	3,614,271	1,821	5,140,685
Port Colborne	100	272,078	571	1,066,449	671	1,338,527
Port McNicoll	5	13,718	296	918,081	301	931,799
Prescott	314	413,887	364	424,770	678	838,657
St. Catherines	22	51,826	211	287,206	233	339,032
Sarnia	423	713,244	758	1,153,817	1,181	1,867,061
Sault Ste. Marie	452	1,370,822	545	1,056,518	997	2,427,340
Thorold	82	173,078	273	394,539	355	567,617
Toronto	562	1,428,096	1,686	1,783,490	2,248	3,211,586
Windsor	398	757,109	293	398,999	691	1,156,108
TOTALS, ONTARIO[2] ..	6,964	14,737,235	11,470	18,467,116	18,434	33,204,351
British Columbia—						
Alert Bay	20	576	456	311,198	476	311,774
Nanaimo	252	33,366	2,794	1,199,412	3,046	1,232,778
New Westminster	93	179,832	2,353	1,301,402	2,446	1,481,234
Ocean Falls	15	21,052	968	676,938	983	697,990
Port Alberni	158	189,649	377	483,984	535	673,633
Powell River	220	76,122	3,106	1,143,417	3,326	1,219,539
Prince Rupert	1,177	410,249	2,069	618,806	3,246	1,029,055
Union Bay..	30	6,344	1,152	508,659	1,182	515,003
Vancouver	10,23	2,051,981	17,255	7,743,633	18,278	9,795,614
Victoria	1,368	1,925,962	3,564	3,749,267	4,932	5,675,229
TOTALS, BRITISH COLUMBIA[2] ..	5,256	5,105,564	36,302	18,775,883	41,558	23,881,447
Yukon and Northwest Territories	9	3,609	79	42,783	88	46,392
GRAND TOTALS ..	24,431	29,655,984	65,410	48,098,201	89,841	77,754,185

[1] Sea-going and inland international.

[2] Includes other small ports not shown separately.

Vessels in coasting service and vessels fishing in Canadian waters are not required by customs regulations to report any details of cargoes loaded or unloaded so that cargo data are available only for vessels in foreign service. The cargoes are not cargoes on board but cargoes unloaded and loaded at the respective ports.

Canal Traffic

Since the canals of Canada are open to the vessels and traffic of all nations upon equal terms, United States traffic constitutes an important part of the total carried through certain canals, especially the Welland Ship Canal. This is shown in Tables XXXVIII and XL. More complete details of the traffic through canals may be found in the annual report " Canal Statistics " published by the Dominion Bureau of Statistics.

The figures in Tables XXXVIII and XL include duplications where the same freight passes through two or more canals, but in Table XLI duplications in the traffic passing through the St. Lawrence and Welland Ship Canals and the Canadian lock at Sault Ste. Marie, which amounted to 3,881,423 tons in 1945 and 3,242,872 tons in 1946, have been eliminated.

Grain transhipped at Georgian Bay, Lake Erie, or other ports above Montreal is treated as new cargo and as most of this grain has passed through either the Canadian or United States locks at Sault Ste. Marie there are still duplications in the data because of this treatment. These duplications cannot be avoided when net totals for the Canadian canals are computed because it is impossible to ascertain which lock at Sault Ste. Marie was used by the grain reloaded at Port Colborne or other transhipping port.

TABLE XXXVII

CARGOES LOADED AND UNLOADED AT CANADIAN PORTS BY VESSELS IN FOREIGN TRADE, BY PROVINCES, 1944-45

Province and Year	*Loaded*		*Unloaded*	
	Tons Weight	*Tons Measurement*	*Tons Weight*	*Tons Measurement*
Prince Edward Island—				
1944	19,798	Nil	4	Nil
1945	15,180	76	2,041	,,
Nova Scotia—				
1944	3,202,023	17,237	2,266,903	499
1945	2,969,241	49,686	1,738,822	Nil
New Brunswick—				
1944	2,319,590	452,036	443,021	62,217
1945	2,309,061	475,140	512,334	129,738
Quebec—				
1944	2,946,991	172,111	3,691,563	36,755
1945	6,853,392	340,639	3,691,905	58,740
Ontario—				
1944	7,501,458	Nil	19,504,912	Nil
1945	5,955,203	,,	16,926,183	3
British Columbia—				
1944	2,160,090	163,885	1,647,041	3,083
1945	3,184,483	180,911	1,452,746	16,767
Yukon—				
1944	764	Nil	5	Nil
1945	875	,,	67	,,
TOTALS—				
1944	18,150,714	805,269	27,553,449	102,554
1945	21,287,435	1,046,452	24,324,098	205,248

Traffic through the Sault Ste. Marie canals, Canadian and United States, has been approximately twice as heavy as the traffic through the Panama Canal during the latest ten years for which records are available, and in 1940 was almost three times as heavy. It has varied from a low of 20,484,000 tons in 1932, which was less than the Panama traffic, to a high of 120,200,814 tons in 1942. The dominant traffic, from a tonnage aspect, is iron ore. During the past 50 years this has fluctuated from 4,901,000 tons in 1892, an average of 50,000,000 tons in the 1920's, a low of 3,607,000 tons in 1932 and to a peak of 94,326,578 tons in 1942. Although wheat has ranged as low as only 7 per cent of the iron-ore tonnage, its value has generally been greater than that of the iron-ore traffic, and has been the most valuable single commodity passed through the canals; in 1928 the value of wheat passed through the canals was 40 per cent of the value of all traffic. Other grains have been about one-quarter to one-fifth of the wheat tonnage and a smaller ratio of the value.

Bituminous coal has generally been second in tonnage to iron ore and a large part of it is carried by the ore vessels when returning for a cargo of ore.

Harbour Traffic

The freight movement through a large port takes a number of different forms. The overseas movement, i.e., the freight loaded into or unloaded from sea-going vessels, frequently constitutes a surprisingly small part of the total. Usually the volume coming in and going out by coastwise vessels is larger. Then there is the " in transit " movement in vessels that pass through the harbour without loading or unloading. Finally there is the movement from one point to another within the harbour, which in many ports amounts to a large volume. It is not possible to obtain statistics of the total freight handled in all the ports and harbours of Canada, as many of them are small, and without the staff necessary to obtain a detailed record of freight handled. The National Harbours Board reports annually the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are among the principal ports of Canada and the cargo handled in each is shown in Table XLII. The figures include freight carried by coastwise and inland international, as well as by sea-going shipping; they include all cargo loaded or unloaded whether by facilities under the Board or at private docks and terminals in these ports. Cross-harbour movements, ballast (non-revenue), bunkers, ships' stores, mail and passengers' baggage are excluded.

TABLE XXXVIII

TRAFFIC THROUGH CANADIAN CANALS, BY NATIONALITY OF VESSELS AND ORIGIN OF FREIGHT, NAVIGATION SEASONS, 1942-46

Navigation Season	*Nationality of Vessel*				*Origin of Freight Carried*				
	Canadian		*United States*[1]		*Canada*		*United States*		*Total*
	No.	*Registered Tonnage*	*No.*	*Registered Tonnage*	*Tons*	*P.C. of Total*	*Tons*	*P.C. of Total*	*Tons*
1942	22,150	18,952,917	3,751	8,404,363	7,764,804	37·2	13,134,835	62·8	20,899,639
1943	20,855	18,273,304	2,617	5,686,958	7,838,429	36·5	13,637,765	63·5	21,476,194
1944	20,780	18,191,826	1,911	4,541,575	8,002,746	38·8	12,612,761	61·2	20,615,507
1945	21,064	19,068,308	1,553	3,426,069	10,491,263	47·0	11,829,136	53·0	22,320,399
1946	17,199	16,206,415	1,794	3,221,008	8,889,782	47·7	9,765,137	52·3	18,654,919

[1] Figures include a small percentage of vessels of other foreign nationalities.

TABLE XXXIX

TONNAGE OF CANAL TRAFFIC, BY CANAL AND CLASS OF PRODUCT, NAVIGATION SEASON, 1946

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	*Agricultural Products*	*Animal Products*	*Manufactures and Miscellaneous*	*Forest Products*	*Mineral Products*	*Total*
	tons	*tons*	*tons*	*tons*	*tons*	*tons*
Sault Ste. Marie	1,032,787	175	576,826	166,266	164,075	1,940,129
Welland Ship	2,084,398	216	3,037,954	375,784	5,081,794	10,580,146
St. Lawrence River	1,068,351	3,652	1,391,417	439,897	2,847,261	5,750,578
Richelieu River..	Nil	35	33,491	Nil	5,755	39,281
St. Peters	1,909	795	12,630	148	5,195	20,677
Murray	1	Nil	7,260	Nil	Nil	7,261
Ottawa River	Nil	”	47,685	”	213,610	261,295
Rideau	”	”	186	433	820	1,439
Trent	”	”	36,543	64	4	36,611
St. Andrews	638	2,669	5,832	8,100	263	17,502
TOTALS ..	4,188,084	7,542	5,149,824	990,692	8,318,777	18,654,919

TABLE XL

CANAL TRAFFIC, BY DIRECTION AND ORIGIN, NAVIGATION SEASON, 1946

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	*From Canadian to Canadian Ports*		*From Canadian to United States Ports*[1]		*From United States*[1] *to United States Ports*[1]		*From United States*[1] *to Canadian Ports*	
	Up	*Down*	*Up*	*Down*	*Up*	*Down*	*Up*	*Down*
	tons	*tons*	*tons*	*tons*	*tons*	*tons*	*tons*	*tons*
Sault Ste. Marie	426,671	1,090,110	9,058	198,367	36,478	15,763	163,682	Nil
Welland Ship	783,630	2,444,348	401,207	14,937	200,006	735,747	30,942	5,969,329
St. Lawrence River	1,203,779	1,551,065	378,983	18,512	45,256	51,437	16,237	2,485,309
Richelieu River	Nil	1,204	24,506	Nil	Nil	Nil	Nil	13,571
St. Peters	12,443	6,181	673	”	”	”	55	1,325
Murray	Nil	7,260	Nil	”	”	”	Nil	Nil
Ottawa	45,417	212,450	”	3,428	”	”	”	”
Rideau	613	826	”	Nil	”	”	”	”
Trent	68	36,544	”	”	”	”	”	”
St. Andrews	10,919	6,583	”	”	”	”	”	”
TOTALS ..	2,483,540	5,356,571	814,427	235,244	281,740	802,947	210,916	8,469,534

Canal	*Traffic by direction*		*Origins of Cargo*		*Total Cargo*	*Comparison with 1945*
	Up	*Down*	*Canada*	*United States*[1]		
	tons	*tons*	*tons*	*tons*	*tons*	*tons*
Sault Ste. Marie	635,889	1,304,240	1,724,206	215,923	1,940,129	−78,757
Welland Ship	1,415,785	9,164,361	3,644,122	6,936,024	10,580,146	−2,382,186
St. Lawrence River	1,644,255	4,106,323	3,152,339	2,598,239	5,750,578	−1,197,292
Richelieu River	24,506	14,775	39,281	Nil	39,281	−7,297
St. Peters	13,171	7,506	20,677	”	20,677	−988
Murray	Nil	7,260	7,260	”	7,260	+5,055
Ottawa River	45,417	215,878	261,295	”	261,295	+3,123
Rideau	613	826	1,439	”	1,439	+576
Trent	68	36,544	36,612	”	36,612	−14,000
St. Andrews	10,919	6,583	17,502	”	17,502	+6,286
TOTALS ..	3,790,623	14,864,296	8,904,733	9,750,186	18,654,919	−3,665,480

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[1] Figures for the United States include a small percentage to or from ports of other foreign countries.

TABLE XLI

ST. LAWRENCE-GREAT LAKES TRAFFIC USING ST. LAWRENCE, WELLAND SHIP AND SAULT STE. MARIE CANALS, 1946

Canals Used	*Up-Bound Freight*	*Down-Bound Freight*	*Total*
	tons	*tons*	*tons*
Traffic Using Canadian Canals—			
St. Lawrence only	896,083	2,240,462	3,136,545
St Lawrence and Welland Ship	649,396	1,637,332	2,286,728
St. Lawrence, Welland Ship and Sault Ste. Marie[1]	98,776	228,529	327,305
Welland Ship only	667,613	6,607,559	7,275,172
Welland Ship and Sault Ste. Marie[1]	195,164	1,971,649	2,166,813
Sault Ste. Marie only	425,491	947,616	1,373,107
TOTALS, TRAFFIC USING CANADIAN CANALS	2,932,523	13,633,147	16,565,670
Traffic Using United States Locks at Sault Ste. Marie Only	18,202,107	72,819,158	91,021,265
TOTALS, CANAL TRAFFIC	21,134,630	86,452,305	107,586,935

[1] Through both Canadian and United States locks at Sault Ste. Marie.

TABLE XLII

PRINCIPAL COMMODITIES IN WATER-BORNE CARGO LANDED FROM AND LOADED TO VESSELS AT EACH OF SIX PRINCIPAL PORTS, 1946

Port and Commodity	1946	
	Inward	*Outward*
	tons	*tons*
Montreal—		
Grain	634,954	1,796,314
Coal, bituminous	1,108,649	Nil
Gasoline	227,980	598,845
Flour, wheat	Nil	638,316
Petroleum oil, fuel	49,397	331,484
Petroleum oil, crude	249,163	34,075
Sugar, raw	178,442	Nil
Motor-vehicles and parts	24,941	140,922
Lumber (planks, boards and flooring) and square timber	4,295	150,799
Meats, canned, cured, prepared or preserved	514	144,219
Petroleum oil, refined, not otherwise specified	31,680	93,593
Manganese ore	41,227	79,843
Railway equipment, not otherwise specified	16	110,567
Paper, newsprint	Nil	99,813
Phosphate rock	65,641	30,204
Kerosene	83,872	8,806
Cement, common or portland	921	83,265
Pulpboard (except wallboard)	7	79,198
Gypsum, crude	75,940	Nil
Coal, anthracite	74,654	189
Molasses	50,132	13,498
Iron ore	38,779	22,470
Wood-pulp	1	52,202
Cheese	73	49,971
TOTALS, 24 COMMODITIES	2,941,278	4,558,593
GRAND TOTALS, ALL COMMODITIES	3,405,018	5,694,082
Vancouver—		
Grain	2,410	1,718,394
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	917,930	111,509
Vancouver—cont.		
Petroleum oil, crude	865,037	——
Petroleum oil, fuel	449,273	324,007
Lumber (planks, boards and flooring) and square timber	484,943	276,507
Sand and gravel	364,997	15,086
Paper, newsprint	224,006	29,114
Gasoline	102,428	119,189
Coal, bituminous	137,521	52,333
Flour, wheat	3	176,919
Wood-pulp	146,167	18,326
Fish (including shellfish), canned or preserved	35,686	66,751
Fertilisers and fertiliser materials	7,985	67,256
Cement, common or portland	68,597	5,953
Hog fuel	Nil	68,335
Rock and stone	3,045	60,581
Kerosene	35,408	15,614
TOTALS, 17 COMMODITIES	3,845,436	3,125,874
GRAND TOTALS, ALL COMMODITIES	4,379,263	3,865,318
Halifax—		
Petroleum oil, crude	1,007,252	Nil
Petroleum oil, fuel	60,538	252,032
Coal, bituminous	264,401	406
Gasoline	94,322	134,327
Grain	4,916	216,535
Flour, wheat	23	180,697
Motor-vehicles and parts	22,064	81,944
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	32	95,524
Lumber (planks, boards and flooring) and square timber	30	88,813
Meats, canned, cured, prepared or preserved	206	58,305

TABLE XLII

PRINCIPAL COMMODITIES IN WATER-BORNE CARGO LANDED FROM AND LOADED TO VESSELS AT EACH OF SIX PRINCIPAL PORTS, 1946—*cont.*

Port and Commodity	1946	
	Inward	*Outward*
	tons	*tons*
Halifax—*cont.*		
Fish (including shellfish), fresh or frozen	50,585	4,430
Sugar, raw	53,317	Nil
Fish (including shellfish), dried, pickled, salted or smoked	13,828	39,357
TOTALS, 13 COMMODITIES	1,571,514	1,152,370
GRAND TOTALS, ALL COMMODITIES	1,738,442	1,647,270
Saint John—		
Grain	Nil	476,848
Flour, wheat	30	300,556
Coal, bituminous	278,805	1,916
Lumber (planks, boards and flooring) and square timber	8,658	155,417
Sugar, raw	140,279	Nil
Motor-vehicles and parts	34,868	100,889
Paper, newsprint	Nil	106,186
Gasoline	78,360	12,546
Petroleum oil, fuel	80,941	4,121
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	3,969	78,175
Potatoes	1,208	52,245
TOTALS, 11 COMMODITIES	627,118	1,288,899
GRAND TOTALS, ALL COMMODITIES	937,777	1,868,911
Three Rivers—		
Pulpwood	871,013	Nil
Coal, bituminous	417,444	„
Grain	72,571	184,615
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	Nil	144,353
Paper, newsprint	„	88,993
Lumber (planks, boards and flooring) and square timber	4,257	41,344
Gasoline	22,673	Nil
Sulphur	9,669	„
Petroleum oil, fuel	6,039	1,308
Sand and gravel	6,746	Nil
TOTALS, 10 COMMODITIES	1,410,412	460,613
GRAND TOTALS, ALL COMMODITIES	1,427,222	475,302
Quebec—		
Pulpwood	451,986	100,011
Coal, bituminous	349,948	1,202
Gasoline	114,892	240
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	493	105,538
Petroleum oil, fuel	95,297	457
Grain	19,313	58,099
Lumber (planks, boards and flooring) and square timber	9,030	47,717
Cement, common or portland	43,040	613
TOTALS, 8 COMMODITIES	1,083,999	313,877
GRAND TOTALS, ALL COMMODITIES	1,158,884	381,875

CIVIL AIR TRANSPORTATION

Historical Developments

About the turn of the century W. R. Turnbull, who may be termed the " father of aeronautical research in Canada," was experimenting with aerofoils and propellers at Rothesay, N.B., where, in 1902, he set up the first small wind tunnel in Canada. He discovered the laws of the centre of pressure movement on aerofoils, and made deductions from these laws which explained the longitudinal stability of aeroplanes. He also propounded the static laws of air propellers and in later years evolved and developed the controllable-pitch propeller.

At the time that Mr. Turnbull was beginning his work, Dr. Graham Bell was experimenting with kites and airscrews in laboratories at his summer home at Baddeck, Cape Bretton Island. The " Aerial Experiment Association," formed in 1907, comprised five members: Dr. Bell, J. A. D. McCurdy and F. W. Baldwin, two young Canadian engineering graduates, Glen Curtiss, a motor-cycle engine builder from New York State, and Lieut. Selfridge, on leave from the United States Army. As a result of the work of these associates, the first flight in Canada was made at Baddeck on Dec. 7, 1907, in the *Cygnet*, a tetrahedral kite, which was towed by a steam tug. On Feb. 23, 1909, McCurdy's aeroplane, the *Silver Dart*, was taken out for tests on the ice at Baddeck. With its designer as pilot and under its own power, it flew for half a mile, rising thirty feet above the ice. This was the first aeroplane flight by a British subject. The *Silver Dart* was an advance on any aircraft previously flown, notable features being a three-wheel undercarriage, tapered wings, and the use of aileron controls.

Progress was rapid throughout the civilised world in the development and design of heavier-than-air flying craft from 1908 to the outbreak of the First World War and this progress was accelerated during the War by the intensity of competition for superiority in the air, and by the wide field for experiment which the war activities provided. Officially, Canada took little part in these developments. However, many young Canadians entered the flying service of Britain and, to facilitate their recruitment and preparation, training units were established in Canada. To provide the aircraft for training purposes, Canadian Aeroplanes, Limited, was organised by the Imperial Munitions Board and, by the end of the War no less than 2,900 'planes had been built by this industry. In the latter part of the War, owing to the extension of submarine raiding to the Atlantic Coast of America, a Royal Canadian Naval Air Service was organised to patrol the coasts of the Maritime Provinces and the Gulf of St. Lawrence. Bases were established at Halifax and Sydney, N.S., and patrols inaugurated on Aug. 25, 1918.

At the end of the War, thousands of young men with training and experience in the British flying services returned to Canada, full of enthusiasm for aviation, and seeking an opportunity to apply their new knowledge to peacetime developments. At the same time, governments were disposing of their surplus stocks of 'planes at bargain prices. Action was necessary to supervise and control aviation in Canada. The Air Board was appointed in June, 1919, with authority for the full regulation of civil aeronautics. Branches were organised to deal with licensing of aircraft and personnel, to conduct operations for other Government services, and to provide technical services.

The immediate post-war circumstances of a large number of trained pilots and many surplus aircraft resulted in great activity in flying. However, much of this was in the form of exhibition flying, joy-riding and flying instruction. Patronage of these activities soon waned as the novelty of flying wore off among the general public. However, the foundations for real progress were laid by a few more far-sighted men who sought to apply the facilities of aircraft to practical purposes in forest reconnaissance, surveying, and transportation in inaccessible areas of the country. In the summer of 1919 successful flights were made for forest protection and survey work at Lac à la Tortue in Quebec. In the summers of 1920 and 1921 bases were established by the Air Board, with provincial co-operation, at various points across Canada from which forest patrols and survey work were carried on. In addition, some large corporations established their own air services for forest patrol, surveys and transportation. The discovery of crude oil at Fort Norman on the Mackenzie River in the Northwest Territories in the autumn of 1921 led to the first large-scale attempt by commercial interests to establish air transportation in the far north. As a result of the development of mining activity at Rouyn in northwestern Quebec, the first regular freight and passenger air-transport service was inaugurated in 1924.

From these beginnings the expansion has been rapid. The speed and ease of air transport has played a very important part in the development of mining activity throughout many areas of the Canadian Shield during recent years. Aircraft have been regularly used all across Canada for forest sketching, patrol and fire suppression, while very large areas have been mapped each year by aerial photography. The basic reasons for this progress of flying in the north country are simple. The only alternative means of transportation in many cases—the canoe in summer and the dog team in winter—are arduous, tedious, very costly, and slow for long distances. Furthermore, the lakes which dot the country everywhere provided, from the first, readily available landing places for aircraft equipped with floats in summer and with skis in winter. The flying could all be done in daylight hours and trips could generally be postponed if weather conditions were unfavourable. As a result, commercial flying throughout the north country was able to perform a very real economic service and to show substantial progress without governmental subsidies of any kind. Numerous governmental functions are being carried out with increased efficiency and economy through the aid of flying.

The situation was wholly different in the older settled parts of Canada. Here other forms of dependable and efficient transportation were already in existence and in some phases over-developed. The only advantage flying could offer was a saving of time, and to effect this an elaborate system of ground facilities was necessary. On account of the expense entailed, the development of inter-city air transportation was left in abeyance at first until progress elsewhere would give a clearer indication of its success and value. However, the success of inter-city air services in Europe and the steady growth of the United States airway system led to a reconsideration of Canada's position in 1927. As a step in establishing a chain of airports across Canada and also to provide for the training of personnel, the flying-club movement was started with the offer of government grants and gifts of aircraft. Twenty-three flying clubs were established in the principal cities of Canada in 1928 and 1929. Aerodromes established by municipalities or by these flying clubs formed the nucleus for the Trans-Canada Airway, the Federal Government having to provide intermediate landing fields, especially through the Rocky Mountains and across northern Ontario, and the weather-reporting, lighting, and radio services.

At the beginning of 1923, in the unification of the defence forces under the Department of National Defence, the Air Board, established in 1919, was abolished and the administration of aviation was placed under the Department of National Defence. At this period when both military and civil flying services were small and in the early stages of their development, the advantages of combining their administration in one department were manifest. However, the two functions inevitably developed along different lines, these differences applying both to types of aircraft and to training of personnel. With the growth of both military and civil flying, their administration in one Department became less convenient and stability in the administration of aviation in the Dominion was finally reached in the autumn of 1936 by the complete separation of the military and civil functions, the latter being transferred to the new Department of Transport. Civil aviation has now become so important a part of the transportation facilities of Canada that it can best be administered by the Department that deals with railway and shipping services, to which aviation is complementary.

Recent Developments

The transition of civil aviation from war to peace was completed in 1946 when then existing wartime controls of aviation were removed; airports and aerodromes, constructed for war purposes, were acquired for civilian use and considerable construction work was undertaken to convert some of these to meet the requirements of heavy transport 'planes; airway controls were extended; additional aids to air navigation were provided; and construction was commenced on new airports to meet the demand for expansion of Canada's airway system which had been temporarily halted by the War.

Disposal of Airports.—Most of the airports and aerodromes built for or adapted to war use by the British Commonwealth Air Training Plan have been acquired by the Department of Transport since the cessation of hostilities. Post-war civilian use was envisioned for many of these aerodromes when they were built; those declared surplus by the Royal Canadian Air Force have been transferred, through the medium of the Crown Assets Allocation Committee, to the Department of Transport and have, in most cases, been retained for civilian use. Most airports leased from municipalities are being returned to them; many of the newly constructed fields also have been leased to interested municipalities or other responsible bodies.

Many of the R.C.A.F. buildings on the airports taken over have been retained for departmental or municipal use or have been made available at nominal yearly charges to reorganised local flying clubs. Buildings not required for these purposes or as storage warehouses for the War Assets Corporation have been turned over to the Crown Assets Allocation Committee to alleviate housing and other building shortages.

New Development.—With the acquisition by the Department of Transport, of extended airway and airport facilities constructed by the United States Army Air Force in northern Canada for Hemisphere defence purposes, the Department has undertaken the further development of the Edmonton-Norman Wells route via Fort McMurray. The Northwest Staging Route from Edmonton to Whitehorse, originally constructed by the Department of Transport and extended during the War, remains for the present under the operational control of the R.C.A.F. with the exception of the Radio Range and Meteorological Services. No decision has been reached as to the use or disposal of airport facilities on the "Crimson Route" or Northeast Staging Route extending from The Pas to Churchill, Man., Southampton Island, N.W.T., and Goose Bay, Labrador.

Detailed surveys were undertaken during the year for proposed airport sites in the Provinces of Alberta, Ontario, Quebec and New Brunswick, at Banff, Red Lake, Atikokan, Gore Bay, Wiarton, Caribou Island, Chibougamau, Matane and Fredericton. Also, by arrangements with the Department of Mines and Resources, construction of a second landing strip was started on the airport at Yellowknife, N.W.T., to enable larger-type aircraft to carry supplies into this important mining centre at all seasons of the year.

Revival of Commercial Flying.—Commercial flying in Canada is still awaiting the appearance of the latest types of civil aircraft. In the meanwhile a number of converted military aircraft have been brought into commercial-flying service. Construction of commercial aircraft in Canada has been greatly hampered by lack of materials and component parts but it is expected that early in 1947 commercial air-carriers in Canada will be in a position to acquire much needed new 'planes and other equipment necessary to their expansion. Many of Canada's war-trained air and ground crews have passed the necessary tests for Certificates of Competency in civilian flying and as air engineers. It is anticipated that as new equipment is made available there will be considerable expansion in commercial flying in Canada.

Private Flying.—Indications are that, as equipment is made available, there will be a spectacular come-back in private flying which, so far, has been held back in spite of military surpluses by lack of equipment and lack of hanger and other aerodrome facilities.

Revival of the Club Movement.—There has been marked activity among Royal Canadian Flying Clubs and many airmen returning from overseas have been actively associated in the revival of this movement. The Royal Canadian Flying Clubs were, in practically all cases, actively engaged during the war years in primary training work for the R.C.A.F.

The Department of Transport Air Services has done much to encourage the revival of Flying Clubs throughout the Dominion and, where possible, has granted special privileges on departmental aerodromes. In co-operation with the R.C.A.F. wartime buildings have been retained at airports and made available to the Clubs at nominal yearly leases.

Canadian Scheduled Air Transport Services

Trans-Canada Air Lines in 1946.—Continued expansion and improvement in service featured the operations of Trans-Canada Air Lines in 1946. New routes were opened, frequencies on some existing routes were intensified and passenger accommodation was materially increased with the addition of new and larger aircraft to the T.C.A. fleet. The Air Lines' growth had the effect of a further relative contraction in Canada's vast distances while enhancing international relations.

A great increase in the number of revenue 'plane miles flown by the Company resulted. The figure of 14,162,377 miles represented an increase of 3,656,302 'plane miles over the previous year. A good part of this additional mileage was flown over the 1,212 miles of new routes which T.C.A. inaugurated during the year. The new routes brought the total mileage up to 6,511 as compared with 5,299 at the end of 1945. Passenger traffic and express showed sharp gains but air-mail figures declined considerably. Sixty-seven per cent more passengers were carried than in 1945, the total of 305,442 being an increase of 122,321, while air express reached 1,043,713 lb., 93,390 lb. above that of 1945. Air-mail volume at 2,325,977 lb. showed a decrease of 1,103,255 lb.

Under the provisions of the 1945 contract, Trans-Canada took delivery during the year of 24 21-passenger DC-3 aircraft, bringing the DC-3 fleet up to 27 at the end of 1946. These 'planes, as received, were put in operation to replace the smaller Lockheed aircraft and are now flying most of T.C.A.'s Canadian and trans-border routes, the Lockheeds being confined mostly to Western Canada on the Lethbridge-Vancouver run. Disposal of part of the Lockheed fleet had begun by the end of summer.

In the early spring, an extra daily flight was added to the Toronto-New York service, now four flights daily in each direction. In July, a new service between Toronto and Chicago was inaugurated and three flights daily are made between these points. A month later another important United States city was added to the Air Lines' net-work when Toronto was joined to Cleveland, Ohio, in a daily service. Two daily flights are operated on this route, via London, Ont. The next international link was forged in September when a daily flight service was introduced between Port Arthur-Fort William, Ont., and Duluth, Minn., and the rapid expansion extended into the following month. In November, operations were commenced on the Victoria-Seattle route while, simultaneously, the existing service between Vancouver and Victoria was increased to eight flights daily. A fourth daily transcontinental service between Montreal and Vancouver went into operation on Apr. 1, 1947.

Canadian Government Transatlantic Air Service.—During 1945, the Canadian Government Transatlantic Air Service, operated by Trans-Canada Air Lines, made its 1,000th crossing of the Atlantic. The service was greatly accelerated, with flight frequencies increased from three a week to one every day, and every scheduled flight was completed. Flights were extended to London, England. The new four-engine 40-passenger aircraft, the *North Star*, which will be used by T.C.A. in trans-ocean and trans-continental services, was test-flown in July, 1946, made a flight across Canada in September and its first transatlantic flight in April, 1947. This airliner is largely the product of Canadian ideas and manufacture.

Canadian Pacific Air Lines.—During the year 1946, Canadian Pacific Air Lines experienced a general improvement in traffic. A considerable portion of this improvement can be attributed to the increase in activity in the mining areas of the country which first evidenced itself during the latter part of 1946. C.P.A.L. has continued its policy of greater standardisation of its fleet by acquiring during the year additional units of new and larger aircraft types, including 10 Douglas C-47's, 9 Norsemen and 4 Cansos.

In 1946, the component companies of the C.P.A.L. flew 6,813,907 miles in revenue service as compared with 5,373,403 miles in 1945; carried 175,461 revenue passengers compared with 125,110; 16,514,741 lb. of freight as against 9,419,556 lb.; and 1,722,733 lb. of mail as compared with 1,253,537 lb. in 1945.

Independent Air Lines.—In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are only four other domestic air lines licensed to operate scheduled services in Canada. These are:—

(1) Maritime Central Airways of Charlottetown, P.E.I.
(2) Northern Airways Limited, Carcross, Y.T.
(3) Leavens Brothers Air Services Ltd., Toronto, Ont.
(4) M and C Aviation Co., Ltd., Prince Albert, Sask.

Most of the independent air lines are operating non-scheduled services which, with few exceptions, are charter services from designated bases. It is in this field that the greatest development has taken place in the immediate post-war period. These non-scheduled air services not only provide effective means of access to sections of the Dominion that are inaccessible by other means of transportation, but also act as feeders to the scheduled air lines.

It is in the charter-service field of commercial aviation that ex-service men, particularly Air Force personnel, have shown the greatest interest, inasmuch as they can commence operations in a modest way and the capital required is not exorbitant.

At the close of 1946, operating certificates issued by the Air Services Branch of the Department of Transport included 70 non-scheduled commercial charter services from designated bases and three such services operating between qualified points.

Foreign Scheduled Services.—Operating certificates issued to foreign scheduled services flying into Canada number five and consist of the following:—

(1) Pan-American Airways, Inc., operating between Seattle, Wash., and Fairbanks, Alaska, with refuelling stop at Port Hardy, B.C., and points of call at Juneau, Alaska, and Whitehorse, Y.T.
(2) United Air Lines, Inc., operating between Vancouver, B.C., and Bellingham, Wash.
(3) American Airlines Inc., operating between Toronto, Ont., and Buffalo, N.Y., and also the Canadian portion of the route between Buffalo, N.Y., to Windsor, Ont., and Detroit, Mich.
(4) Colonial Airlines, Inc., operating between Montreal, Que., and Burlington, Vt.; between Ottawa, Ont., and Burlington via Montreal;between Montreal and Syracuse, N.Y.; and between Ottawa and Syracuse.
(5) British Overseas Airways Corporation with Canadian Terminal at Montreal Airport (Dorval).

AIRPORTS AND AIRCRAFT

Summary Statistics of Civil Aviation

From commercial operators of aircraft, aeroplane clubs, etc., the Bureau of Statistics collects and compiles civil aviation statistics, with the exception of data on licences and accidents, which are reported by the Civil Aviation Division of the Department of Transport.

The commercial companies are divided into two classes, those engaged principally in international flying between Canada and the United States and those engaged exclusively or almost exclusively in flying between Canadian stations. Regular flying on the Montreal to Vancouver portion of the Trans-Canada Airway began toward the end of 1938. The statistics for 1939 were the first to include extensive operations of the Trans-Canada Air Lines. The companies operating in the north country carry passengers, freight and supplies into and out of the mines and account for the large volume of freight carried by air in Canada. Because of this feature of civil aviation in Canada, it is difficult to make comparisions with other countries where the traffic is principally inter-urban passenger traffic between well-established airports.

TABLE XLIII

SUMMARY STATISTICS OF CIVIL AVIATION, 1940-45

Item		1940	1941	1942	1943	1944	1945
AIRCRAFT MILES FLOWN—							
Revenue	No.	10,341,329	11,810,668	12,781,867	14,584,115	15,568,559	18,618,970
Non-revenue	,,	671,258	697,722	547,276	709,434	620,803	1,468,462
TOTALS ..	,,	11,012,587	12,508,390	13,329,143	15,293,549	16,189,362	20,087,432
PASSENGERS CARRIED—							
Revenue[1]	No.	135,779	181,219	198,205	282,886	371,397	490,809
Non-revenue[2]	,,	11,406[3]	15,048[3]	13,345[3]	12,375[3]	11,695[3]	17,887
TOTALS ..	,,	149,025	208,059	229,047	314,642	403,938	525,407
PASSENGER MILES—							
Revenue	No.	38,438,439	53,891,516	70,554,377	100,530,892	111,127,010	153,504,833
Non-revenue[2]	,,	2,727,363	2,832,198	2,652,224	2,859,572	2,759,319	5,658,612
TOTALS ..	,,	41,165,802	56,723,714	73,206,601	103,390,464	113,886,329	159,163,445
FREIGHT CARRIED—							
Revenue[4]	*lb.*	12,978,836	14,719,700	11,055,142	11,546,777	10,522,932	12,615,119
Non-revenue	,,	1,446,020[3]	1,733,361[3]	1,243,938[3]	1,515,288[3]	1,247,743[3]	1,447,642
TOTALS ..	,,	14,436,571	16,559,611	12,651,939	13,853,563	12,430,645	14,462,400
FREIGHT TON MILES—							
Revenue	No.	784,922	956,482	1,125,912	1,500,179	1,406,679	1,337,145
Non-revenue	,,	161,273	169,055	148,038	218,141	261,507	313,072
TOTALS ..	,,	946,195	1,125,537	1,273,950	1,718,320	1,668,186	1,650,217

TABLE XLIII

SUMMARY STATISTICS OF CIVIL AVIATION, 1940-45—*cont.*

Item		1940	1941	1942	1943	1944	1945
Mails Carried[5]	*lb.*	2,710,995	3,411,971	5,470,209	7,586,809	7,296,265	6.418 944
Ton Miles	No.	610 053	894,578	1,484,314	2,103,867	2,072,129	2,096,289
Hours Flown by Aircraft—							
Transportation revenue ..	No.	80,796	88,536	92,314	101,169	105,815	125,569
Transportation non-revenue ..	,,	6,871	7,049	5,227	6,438	5,308	12,391
Patrols, surveys, etc.	,,	64,161	37,238	20,335	9,055	12,299	14,610
Totals ..	,,	151,828	132,823	117,876	116,662	123,422	152,570
Hours flown by crew	No.	226,534	241,154	235,573	257,815	279,943	369,148
Hours flown by passengers ..	,,	300,904	379,777	480,534	562,337	712,373	1,047,985
Horse power hours flown by aircraft	'000	105,451	113,797	127,246	165,487	183,556	216,288
Gasoline consumption[6]	*gal.*	3,959,798	4,389,648	4,653,555	5,661,301	6,169,355	7,855,067
Lubricating oil consumption[6] ..	,,	92,719	104,758	104,441	117,050	100,240	121,963
Licensed civil airports (all types) ..	No.	[7]	180	177	175	136	146
Licensed Civil Aircraft (all Types)—							
Gross weight—							
Up to 2,000 lb.	No.	267	227	132	52	71	169
2,001— 4,000 lb.	,,	85	86	64	48	44	47
4,001—10,000 lb.	,,	103	96	89	73	87	111
Over 10,000 lb.	,,	18	31	33	41	45	54
Totals, Aircraft ..	,,	473	440	318	214	247	381
Ownership, Commercial—							
Up to 2,000 lb.	No.	109	109	75	33	7	117
2,001— 4,000 lb.	,,	61	58	46	35	18	34
4,001—10,000 lb.	,,	80	71	61	54	53	77
Over 10,000 lb.	,,	18	30	32	38	45	50
Ownership, Other—							
Up to 2,000 lb.	No.	158	118	57	19	64	52
2,001— 4,000 lb.	,,	24	28	18	13	26	13
4,0001—10,000 lb.	,,	23	25	28	19	34	34
Over 10,000 lb.	,,	Nil	1	1	3	Nil	4
Licensed Civil Air Personnel—							
Commercial pilots	No.	128	77	108	67	68	96
Limited commercial pilots ..	,,	249	322	324	218	181	457
Transport pilots	,,	152	158	188	235	318	485
Private pilots	,,	825	760	656	242	255	389
Air Engineers	,,	822	832	944	983	850	962

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[1] Exclusive of passengers carried between foreign stations. [2] Includes employees other than crews. [3] Revised since the publication of the 1946 Year Book. [4] Exclusive of freight carried between foreign stations. [5] Compiled on a different basis from those of the Post Office. [6] For Canadian carriers only. [7] Not available.

Ground Facilities

Early ground facilities for civil aviation in Canada consisted chiefly of municipal or flying-club airports adjacent to the larger urban centres, and of numerous terminals from which commercial flying services operated, mainly into the northern mining regions. A large air terminal was built at St. Hubert, Que., seven miles south of Montreal, with immigration, customs and postal facilities available. These earlier airports formed the nucleus which with many additions and improvements, became the chain of aerodromes constituting the Trans-Canada Air Lines. The development of this airway and the use and expansion of the ground facilities for military purposes during the Second World War affected the status and facilities of many former municipal airports.

Aircraft

The construction in Canada of aircraft and equipment is essential to the development of flying. Before the War

TABLE XLIV

CIVIL AIRPORTS BY TYPE, AS AT DEC. 31, 1945

Type	*Landing Surfaces*			
	Land Only	*Water Only*	*Land & Water*	*Total*
	No.	*No.*	*No.*	*No.*
Public	13	14	Nil	27
Dominion Government	22	4	,,	26
Intermediate	49	Nil	,,	49
Provincial	Nil	7	,,	7
Private	7	17	,,	24
Municipal airports ..	8	3	2	13
Totals ..	99	45	2	146

several manufacturers were producing original types especially suited to operation in Canada, and a number of manufacturers from England and the United States formed branches in Canada for the assembly and servicing of their products. There were also a number of plants for the manufacture of landing gear, especially skis and pontoons, designed to meet the particular requirements of Canadian conditions. Plants equipped to manufacture civil aircraft and parts were changed over during the War to the production of military types and the industry expanded by many additional plants and firms.

Aerial Traffic

Table XLIII, shows large increases in passenger traffic during the years from 1940 to 1945. The amount of freight carried by aircraft grew rapidly, increasing from

TABLE XLV

OPERATIONS OF CIVIL AIRCRAFT IN CANADA, 1945

Item		*Canadian Carriers*			*Foreign International*	*Total*
		Scheduled	*Non-scheduled*	*Non-commercial*		
Aircraft Miles Flown—						
Revenue transportation	No.	16,331,297	938,341	Nil	1,349,332	18,618,970
Non-revenue transportation ..	„	1,274,432	38,010	148,990	7,030	1,468,462
TOTALS ..	„	17,605,729	976,351	148,990	1,356,362	20,087,432
Passengers Carried—						
Revenue	No.	330,744	18,716	Nil	141,349	490,809
Between foreign stations	„	Nil	Nil	„	16,711	16,711
Non-revenue	„	10,306	655	3,673	3,253	17,887
TOTALS ..	„	341,050	19,371	3,673	161,313	525,407
Passenger Miles—						
Revenue	No.	130,912,167	866,789	Nil	21,725,877	153,504,833
Non-revenue	„	4,316,004	73,770	199,916	1,068,922	5,658,612
TOTALS ..	„	135,228,171	940,559	199,916	22,794,799	159,163,445
Freight Carried—						
Revenue	*lb.*	10,800,763	1,164,581	Nil	649,775	12,615,119
Between foreign stations	„	Nil	Nil	„	399,639	399,639
Non-revenue	„	840,199	15,695	429,765	161,983	1,447,642
TOTALS ..	„	11,640,962	1,180,276	429,765	1,211,397	14,462,400
Freight Ton Miles—						
Revenue	No.	1,198,637	36,936	Nil	101,572	1,337,145
Non-revenue	„	243,728	622	11,982	56,740	313,072
TOTALS ..	„	1,442,365	37,558	11,982	158,312	1,650,217
Mail carried	*lb.*	5,114,453	81,149	Nil	1,223,342	6,418,944
Mail ton miles	No.	1,789,282	1,968	„	305,039	2,096,289
HOURS FLOWN BY AIRCRAFT—						
Transportation revenue	No.	110,211	6,313	Nil	9,045	125,569
Transportation non-revenue ..	„	10,512	343	1,478	58	12,391
Patrols, surveys, etc...	„	375	7,326	6,824	85	14,610
TOTALS ..	„	121,098	13,982	8,302	9,188	152,570
Hours flown by crew	No.	293,649	10,344	8,386	56,769	369,148
Hours flown by passengers	„	860,482	11,794	1,730	173,979	1,047,985
Horse power hours flown	’000	153,780	Nil	30,004	32,504	216,288
Gasoline consumption	*gal.*	6,869,665	163,622	163,669	658,111	7,855,067
Lubricating oil consumption	„	112,771	4,253	4,063	876	121,963

2,372,467 lb. in 1931 to a record of 24,317,610 lb. in 1937; it decreased considerably during the war years, amounting to 14,462,400 lb. in 1945, due mainly to the decline in the gold-mining industry and the restrictions in the use of aircraft for trapping and other operations. In the years before the War, a large part of the air freight was mine machinery and supplies to gold-mining companies. Many of these mines, located in the northern parts of Quebec, Ontario and the Western Provinces and in the Northwest Territories, were accessible only by canoe in the summer and dog team in the winter or by aircraft, and aircraft transportation was the cheapest and most effective method of transportation.

Statistics for international carriers include only traffic over Canadian territory for both Canadian and foreign operators. A small traffic across Canadian territory and between foreign stations is also included. Statistics for Canadian carriers operating international rotues are included both as " International " and " Canadian " but duplications are excluded in the totals.

HEALTH AND WELFARE SERVICES IN CANADA

By FRANCES WEEKES

Health and Welfare Statistics Department, Dominion Bureau of Statistics.

HEALTH and Welfare services in Canada may be divided into four broad groups: (1) health services; (2) income security measures, including social insurance and public assistance; (3) children's services; and (4) corrections.

In Canada, as elsewhere, all these social services are interdependent, performing personal services for the same group of individuals and families. They are also closely related to other government programmes and to charitable and social welfare activities carried out by voluntary social agencies and religious organisations.

Under the Canadian constitution, provincial governments have primary responsibility for publicly-administered social services. Activities of the federal government are limited to unemployment insurance and the national employment service, both of which were made possible by constitutional amendment in 1940; children's allowances; services for special groups such as members of the armed forces, veterans, seamen, and Indians and Eskimos; social treatment of adults convicted of serious offences and sentenced to federal penitentiaries for terms of two years and over; research activities and consultant services provided by the Department of National Health and Welfare; and financial contributions toward provincially-administered health services and old age and blind pensions schemes. During the depression of the 1930's the Dominion government participated in the costs of unemployment relief and relief works, although primary responsibility was recognised as being that of provincial and municipal governments.

In addition to relief to the unemployed, provincial authorities are responsible for other forms of public assistance, including allowances to needy mothers with dependent children, old age and blind pensions (The Dominion government meeting three-fourths of the actual pension cost), general poor relief and institutional care. Workmen's compensation is administered by quasi-judicial boards in the eight provinces where this type of collective provision for industrial accidents is in effect.

Provincial governments are also responsible for a wide range of personal and community health services, for child welfare services, and for delinquency services other than the care of prisoners in federal institutions. Recreation services are administered largely by local authorities and voluntary groups.

In all these fields, some services are administered directly by the provincial government itself, others are carried out by municipal governments or special authorities such as the *ad hoc* boards established for the administration of health services, and others by private agencies or religious groups receiving public subsidies in the form of per capita or lump sum payments.

The character of the service varies from province to province, because of differences in tradition and culture, in economic activity and occupational structure, and, perhaps most significantly, in the relative fiscal capacity of political units equally responsible for the provision of services. To a degree, similar variations in standards of service prevail within the provinces themselves, in spite of the recent trend toward the organisation of services on a province-wide basis.

Health and welfare services are among the largest regular items of public expenditure. In 1946, the first full year of operation for the national family allowance system, expenditures for health and welfare services, excluding delinquency services, by all governments in Canada totalled more than 637 million dollars. Of this, $245 million was expended for family allowances, $152 million for veterans' services, and $64 million for old age pensions.

Health Services

Health services administered by public authorities in Canada include (1) Community health services directed toward the protection of the public through the maintenance of a healthy environment, through the extension of preventive medicine and the promotion of education in health matters; (2) a series of special services, which have developed out of the general public health programme, concerned with prevention and treatment of specific conditions such as tuberculosis, mental illness and venereal disease; and (3) other personal health services, including hospital and medical care.

The first two categories of health service are almost entirely under public control, and, while the work of voluntary hospitals and the private practice of medicine are fundamental to the personal health services, growing recognition of the public interest in the health of the individual has been accompanied by a trend toward organised provision of hospital and medical care through programmes administered by public authorities. A provincial hospital care insurance programme is in effect in Saskatchewan, and a similar plan will go into operation in British Columbia in 1949. Co-operative health plans under industrial auspices expanded greatly during the war years, but their coverage is restricted. Voluntary prepayment plans are of special importance in the hospital field.

Health activities of the federal government are limited to the discharge of Canada's international health obligations, the provision of care for members of the armed forces, veterans, Indians and mariners, the development of central services such as research and statistics, and direct administration of certain services of a national character, such as the enforcement of legislation respecting food and drugs. Grants are made to the provinces for survey of health needs, for general public health, and for a wide range of special services, including hospital construction. During recent years the Dominion government has developed consultant and technical services in specialised health fields, and embarked on an extensive programme of health education. Most of the health services of the Dominion government are centralised in the Department of National Health and Welfare.

Provincial governments, constitutionally responsible for health services, have developed extensive programmes, much of the actual service being carried out under local health authorities. Provincial health departments, which vary in administrative organisation from province to province, provide a wide range of specialised public and personal health services, supervise basic services provided by municipalities, and provide comparable services in remote districts without municipal organisation.

The trend in the organisation of health services in Canada is toward the development of comprehensive programmes under provincial administration, integrating all phases of preventive and treatment services. This has advanced farthest in the Western Provinces, all four of which have enacted legislation providing for programmes of public and personal health services, including public hospital and medical care. Public expenditure for health services in Canada amounted to more than 65 million dollars in 1946.

An important step in the development of Canadian health services was taken in 1948, with the establishment of a system of federal grants to assist the provinces in making health surveys, building hospitals and extending and developing health programmes. These grants follow the general plan outlined at the Dominion-Provincial Conference in 1945, but no steps have been taken to implement the health insurance plan originally proposed along with the health grants.

The following table indicates the amount of the health grants to be paid by the federal government. The Health Survey Grant is to be non-recurring, other grants being paid on an annual basis.

	Thousands of Dollars
Health Survey	625·0
General Public Health Grant:	
At Introduction	4,395·3
At Maximum	6,279·0
Venereal Disease Grant	500·0
Cancer Grant	3,500·0
Crippled Children Grant	500·0
Tuberculosis Grant:	
At Introduction	3,000·0
At Maximum	4,000·0
Mental Health Grant:	
At Introduction	4,000·0
At Maximum	7,000·0
Hospital Construction Grant	13,000·0
Professional Training Grant	500·0
Public Health Research Grant	100·0

Public Health Services.—The range of community health activities includes: (1) environmental health services, such as sanitation, food regulation and inspection, milk and water control, and the inspection of health conditions in industrial plants; (2) control of acute communicable diseases, and preventive and diagnostic programmes relating to tuberculosis, mental illness and venereal disease; (3) maternal and child health services, including school medical inspections; (4) public health nursing and health education.

These public health services are organised in all provinces, but they are not equally available to the entire population. Sparsely settled areas tend to lack public health services, and the degree of local autonomy still obtaining in this field has impeded the development of high standards of service in poorer communities. In recent years rapid progress has been made in the organisation of public health services through units or sanitary districts employing full-time medical and engineering personnel to carry out a broad programme of preventive medicine and the improvement of environmental conditions. This type of public health service is now characteristic of all provinces, with urban areas being well served and coverage of rural people being extended progressively. Shortage of public health personnel is the main barrier to comprehensive service.

While there remains need for continuous and expanded public health activities, there has been a general improvement in community health standards. Typhoid fever mortality has declined from 10 per 100,000 in 1921 to 0·7 per 100,000 in 1946. From 1921 to 1933 the mortality rate from smallpox was less than 1 per 100,000, from 1934 to 1939 it was less than 0·1 per 100,000 and there were no deaths from this cause in the years 1940 to 1946. Diphtheria mortality decreased 91 per cent from a rate of 24 per 100,000 in 1921 to 1·8 in 1946. Mortality from the four communicable diseases of childhood, diphtheria, scarlet fever, measles and whooping cough, taken together, shows a reduction of over 83 per cent from 1926 to 1946.

Infant and maternal mortality rates have declined steadily, but they remain higher than those in the United Kingdom and the United States. The infant mortality rate for Canada in 1946 was 47 per 1,000 live births, and the maternal mortality rate was 18 per 1,000 live births. Efforts are being made in the various provinces to combat infant and maternal mortality through a variety of preventive and treatment measures. These include free maternity hospitalisation in Alberta and free medical examinations for expectant mothers in Ontario. Hospital care for maternity patients is also provided under the general hospital care plan in effect in Saskatchewan.

In many areas not only health education but the extension of diagnostic procedures for special conditions such as cancer, venereal disease, tuberculosis and mental illness has been co-ordinated with the administration of general public health services.

In 1946, expenditures for general public health services amounted to \$19,045,000. Of this, the provincial authorities spent \$9,002,000, the municipalities \$5,794,000 and the Dominion \$4,244,000, of which \$222,000 was granted to the provinces for venereal disease control. Per capita expenditures amounted to \$1·55.

Venereal Disease.—A system of federal grants to provincial governments for venereal disease control, introduced in 1919, has been in effect continuously since that time, except during the period 1932-1937. Grants, which amounted to \$222,000 in 1946, are made for use in preventive measures, chief emphasis being placed upon education and epidemiology. Administration cost to the Dominion government in 1946-47 was \$20,000, while gross expenditures by provinces amounted to \$778,500, and the per capita expenditure by all governments was 6·5 cents.

All provincial health authorities offer the same general type of service, collecting statistics, providing for laboratory diagnosis, maintaining clinics, distributing free drugs to physicians, carrying out epidemiological investigations, case-finding procedures, and education. Five provinces require pre-marital examinations for syphilis.

Tuberculosis.—The Canadian death rate from tuberculosis was 47·4 per 100,000 population in 1946. Over a period of years it has been lower than that in England and Wales, but higher than that in the United States. The Canadian rate was approximately 200 per 100,000 in 1900, 81·0 in 1928, and only 50·9 in 1940. During the war years there was a slight increase in tuberculosis mortality, but the rate has subsequently resumed its decline.

Tuberculosis death rates vary widely between provinces. For a number of years they have been lower in Ontario and the Prairie Provinces than in Quebec and the Maritimes.

Facilities for the hospitalisation of tuberculosis cases are not equally available in all provinces, the greatest need for accommodation existing where mortality rates are highest.

In 1947 the daily average population in Canadian sanatoria was 10,750 and there were 12,376 beds for the treatment of tuberculosis. Treatment is provided free in Saskatchewan, Alberta, Manitoba, New Brunswick and Nova Scotia. In other provinces, persons who can afford to pay are required to do so.

In addition to treatment, provincial and local health authorities carry out education, diagnosis, rehabilitation and after care. In British Columbia, a special system of tuberculosis allowances has been integrated with the provincial social assistance programme, to provide income security for discharged sanatorium patients during their period of convalescence. Legislation directed toward a similar purpose has been enacted in Ontario.

Twelve million dollars was spent on the treatment of tuberculosis patients in hospitals during 1944. Of this, six and a half million came from provincial governments and more than two million from municipal authorities. Half a million was received from paying patients, while Dominion government payments amounted to more than one and a half million dollars. Starting with 1948-49, a federal grant of \$3 million is being made annually to provincial governments for the extension and development of tuberculosis control programmes.

Assistance in the development of mass X-rays has been given through voluntary funds. During the 1947 campaign the Christmas Seal Fund received over \$1,300,000 for the prevention of tuberculosis.

Mental Health.—Recent years have seen a striking increase in the number of hospitalised cases of mental illness in Canada. During the period 1930-1946 the number of resident patients in mental hospitals increased by over 60 per cent, and the rate per 100,000 population by almost 37 per cent. This increase was greatest in the case of mental defectives.

The increased prevalence of mental illness and defect appears to be due not only to the ageing of the general population, the extension of diagnostic facilities and the trend toward hospitalisation, but to an apparent real increase in the amount of mental illness.

There is a critical shortage of accommodation for the mentally ill, and of personnel to staff institutions for their care. Outside Quebec and Nova Scotia, most of Canada's 59 mental institutions are operated by provincial authorities. In Quebec the province pays for the care of patients in privately-administered institutions, over which it maintains a degree of control, and in Nova Scotia there are fifteen municipally-operated mental institutions in addition to the two under provincial administration. The normal bed capacity of Canadian mental institutions in 1946 was 45,443, and the average daily patient population during that year was 49,384.

Except in Saskatchewan, where free treatment was introduced in 1945, and in the Nova Scotia provincial hospital, families of mentally ill persons who are in a position to do so are required to pay for care.

Almost two-thirds of the cost of care for the mentally ill in Canada during 1946 was met by provincial governments, which contributed more than \$17 million out of a total hospital revenue of \$27 million dollars. Municipalities paid almost one million and the Dominion government over \$4 million. Paying patients contributed three million dollars.

Health grants introduced in 1948 included a mental health grant of \$4,000,000, to be increased gradually to \$7,000,000 at the end of six years. The grant is conditional upon the extension of free treatment, including rehabilitation, to the maximum possible extent.

General Hospital Care.—Canada has a comprehensive system of hospitals for the treatment of patients suffering from acute and chronic diseases. In 1946 there were 57,142 beds (excluding bassinets) in public hospitals alone, including voluntary non-profit institutions subsidised out of public funds and admitting patients irrespective of financial status.

Bed capacity of private hospitals in 1946 was only 3,356, while Dominion government hospitals for veterans, Indians and mariners included 11,013 beds (1947). More than half the total bed capacity in public hospitals was in large institutions with more than 200 beds, and almost three quarters in institutions with more than 100 beds.

Reliance on a combined public and voluntary hospital system has resulted in a lack of planning and uneven development, very much better facilities being available to the people in some areas than in others. Many rural areas are still without adequate hospital accommodation.

There is critical need for hospital facilities for convalescents, for the chroncially ill and for senile patients.

Assistance in overcoming the shortage of hospital beds has been afforded through a system of hospital construction grants introduced in 1948. Under this plan, grants of $1,000 per bed for general hospitals and $1,500 per bed for facilities for the chroncially ill were made by the Dominion to provincial governments. Total payments are limited to $13,000,000 annually.

General hospitals provide a wide range of services both for bed-patients and those receiving out-patient care. In 1946 almost seventeen million days' care was provided to 1,505,000 patients in Canadian public hospitals. This was the equivalent of 1·4 days' hospital care per capita of general population.

Costs of care in public hospitals amounted to 86 million dollars in 1946. Contributions from paying patients were the main source of revenue, amounting to $62 million, while provincial and municipal governments together contributed more than $14 million. In most public hospitals patients are charged for service, those who cannot afford to pay being given care at provincial and municipal expense in public wards.

Contributions from public authorities are made not only in the form of per capita per diem grants, but also through special subsidies, tax exemptions, and the guarantee of debentures. In Saskatchewan, payments to hospitals are made from the provincial hospital care insurance fund.

Medical Care.—Most of the Canadian population receives medical care through the purchase of service from private practitioners, public medical care plans being restricted to special groups.

Physicians in Canada are concentrated in large urban areas, 46 per cent. of the country's doctors practising in the seven urban areas with a population of more than 150,000, although only 28 per cent of the Canadian population lived in these areas in 1946. Only 29 per cent of Canada's doctors practised in 1946 in communities of less than 10,000, serving 55 per cent of the population. The shortage of physicians in smaller communities was particularly acute in New Brunswick and Saskatchewan.

Three types of public medical care service have been developed in Canada. The first is that provided to certain groups forming sociological units, including members of the armed forces, veterans, Indians and Eskimos, and mariners. Medical care is provided to these self-supporting persons, because of their membership in the particular group, by the federal government.

Veterans are entitled to medical care during the immediate post-discharge period. Pensioners, who receive free care for disabilities arising from war service, are eligible, along with all veterans with meritorious service outside of Canada, for extended medical benefits provided on a means-test basis.

The second group of medical care services comprises those developed in conjunction with public assistance programmes. Arrangements are in effect in British Columbia, Ontario, Saskatchewan and Alberta, and in a few large cities in other provinces, whereby recipients of various forms of public aid receive medical care at public expense. There is a general lack of organised provision for persons who are not dependent upon the community for other necessities of life, but whose resources are insufficient to meet the costs of medical care.

The third type of tax-supported medical care services is that which has developed in Western Canada through the so-called "municipal doctor" plan, and more recently, through public prepayment plans covering a number of municipal government areas. Under these programmes, which are being integrated with general health planning in Saskatchewan, and to some extent in Manitoba, taxpayers and their dependents receive service without regard to financial resources, and usually without payment at the time of need. Indigent persons are also given care. This type of medical care, together with parallel hospital programmes, has formed the basis for the comprehensive health service plans being developed in the western provinces.

Health Insurance.—While no national health insurance system has been developed in Canada, consideration has been given over a period of years to the possibility of developing a programme whereby the federal government would share the cost of provincially-administered services. The National Health Programme proposed in 1945 included a plan to put the provinces in a position to develop health insurance programmes in progressive stages. The first stage was to have included a general practitioner service, hospital care and diagnostic services, with later stages including the development of other medical services (including surgery), nursing services, dental care and pharmaceutical benefits. The proposal concerning health grants, which was also advanced in 1945, was implemented in modified form in 1948, but no action has been taken with respect to the health insurance plan.

Hospital care insurance has been in effect in Saskatchewan since January 1, 1947. During the first year of operation, the programme covered 780,445 persons, providing 1,221,453 days of care to 121,951 patients. Newborn infants, numbering 20,415, received 187,092 days of care. The total cost of hospital service provided under the programme was $6,301,790. The plan offers a wide range of benefits to the whole population, the extent of hospital care in individual cases being limited only by medical necessity.

A similar programme is being developed in British Columbia, to become effective from January 1, 1949. Alberta has enacted legislation providing for universal health insurance, but no programme has been introduced, other than the maternity hospitalisation plan which has been in effect since 1944.

In Ontario, Quebec and Saskatchewan, active measures are being taken to promote the development of hospital facilities by means of capital grants. Hospital planning is also being advanced in Manitoba, where progress is also being made in the extension of diagnostic services. In Saskatchewan, as part of an integrated plan for the improvement of all health services, active measures are being taken to promote the development of prepaid medical care plans provincial grants being made to approved local schemes.

Voluntary plans for prepayment of costs of medical and hospital care serve limited groups, particularly in urban areas, throughout the country. In Ontario, the most highly industralised province, almost a quarter of the population is covered by voluntary hospital care insurance.

Workmen's compensation schemes, operating in all provinces except Prince Edward Island, include medical care plans for the victims of industrial accidents and those with occupational diseases. Except in British Columbia, where employees contribute to medical care costs, the full cost of this service, as well as of pensions, is met by employers through the system of collective liability. In 1946 medical care expenditure totalled more than six million dollars, of which $2,663,000 represented expenditure by the Ontario Workmen's Compensation Board. In this province, where services are most highly developed, more than half of all accident cases in recent years have required medical care only.

Income Security Measures

Family Allowances.—Canada has had a national system of family allowances in operation since July 1, 1945. Allowances, which are paid monthly by the Dominion government to mothers of children under sixteen, must be spent exclusively towards the maintenance, care, training and advancement of the child.

These tax-free allowances vary in amount according to the age of the child, the monthly rate being:—

Children under 6 years of age	$5·00
Children from 6 to 9 years of age inclusive ..	$6·00
Children from 10 to 12 years of age inclusive	$7·00
Children from 13 to 15 years of age inclusive	$8·00

The allowances are reduced after the fourth child as follows: $1·00 reduction for the fifth child, $2·00 reduction for each of the sixth and seventh children, and $3·00 reduction for each additional child.

Annual disbursements under the family allowance scheme amount to approximately $263,000,000. During May 1948, after the legislation had been in effect for almost three years, the average allowance per child was $5·91, and the average allowance per family $13·30. There were 1,679,480 families, or 3,779,288 children covered by the plan.

Social Insurance.—Two types of social insurance have been developed in Canada: the nationally-administered unemployment insurance system and the workmen's compensation programmes organised under provincial authority.

Unemployment Insurance.—Coverage of the Canadian unemployment insurance system is confined largely to workers in industrial and commercial establishments and government employees. With the exception of workers on hourly, daily, piece or mileage rates, those earning more than $3,120 annually are excluded, as are most persons employed in agriculture, forestry, fishing, lumbering and logging, domestic service, work for non-profit hospitals and charitable institutions, private duty nursing, teaching, the armed forces and police, as well as certain types of subsidiary employment.

WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT

Earnings in a week	*Weekly Contributions*		*Weekly Benefits*	
	By Employee	*By Employer*	*Single Worker*	*Worker with Dependents*
	$	$	$	$
0. Less than 90 cents daily (or under 16 years of age) ..	(1)	0·18	(1)	(1)
1. $5·40—7·49 ..	0·12	0·18	4·20	4·80
2. $7·50—9·59 ..	0·15	0·24	5·10	6·30
3. $9·60—11·99 ..	0·18	0·24	6·00	7·50
4. $12·00—14·99 ..	0·21	0·24	7·20	9·00
5. $15·00—19·99 ..	0·24	0·24	8·10	10·20
6. $20·00—25·99 ..	0·30	0·30	10·20	12·90
7. $26·00—33·99 ..	0·36	0·36	12·30	15·60
8. $34·00 or more ..	0·42	0·42	14·40	18·30

(1) Workers in this class make no contributions and are not eligible for benefit, but may accumulate benefit rights on the basis of employer contributions, half of which are made " on behalf of the employee."

The Dominion government pays the cost of administration plus one-fifth of the aggregate contributions made by employers and employees, which are based on a sliding scale related to weekly earnings. Conditions for the receipt of benefit include: the payment of 180 daily contributions within two years in insured employment: proof of employment and claim properly presented; the claimant to be capable of and available for work, and not to have refused when required to attend a training course. Benefits are not paid during labour disputes, if the opportunity to work has been neglected, or in cases of misconduct. Nor are benefits paid to persons under 16, or to inmates of public institutions. A nine-day waiting period is in effect.

Weekly rates of contribution and benefit are shown in the table adjoining.

These rates are based on the assumption that contributions were made in one class only during the two years preceding the receipt of benefits. Benefits for those without dependents are 34 times the weekly contribution; for those with dependent spouse or children, 45 times the weekly contribution, less 10 cents. Benefits are paid for a limited period, determined individually on the basis of 1 payment for 5 contributions made during the previous five years, less 1 payment for every three benefit payments given during the previous three years.

Organised under the Dominion Department of Labour, the unemployment insurance system is closely related in administration to the national employment service. Claims are investigated and benefits paid through a system of regional offices integrated with those of the employment exchanges.

Claims disallowed by insurance officers may be appealed to a regional Court of Referees, and appeals from these courts are decided finally by Umpires appointed from the Exchequer Court of Canada and superior provincial courts.

At April 1, 1948 there were 3,407,737 workers insured under the Act. During the fiscal year 1947 benefits were paid to 429,922 persons for a total of 18,112,372 days. On March 31, 1948 the balance in the Unemployment Insurance Fund amounted to approximately $450,000,000.

Workmen's Compensation.—Responsibility for dealing with compensation for industrial accidents has been vested in provincial workmen's compensation boards, which have judicial as well as administrative functions. These boards, which include representatives of workers, employers and government, operate in all provinces except Prince Edward Island. There is a high degree of uniformity in legislation and increasingly in administrative practice.

The basic principle of Canadian legislation is that of collective liability of all employers covered, the costs being assessed on industry according to the degree of danger or hazard. A fund is built up from these contributions and used to pay compensation to workmen for personal injury by accident or occupational disease.

Coverage is less extensive than for unemployment insurance, but all the more hazardous and heavy industries are included. Workers in stores and commercial establishments are not covered in most provinces; clerical workers are not included in many industries whose industrial employees are covered; casual and irregular workers in many industries are also excluded. Most agricultural workers are excluded.

Benefits include compensation to the worker in lieu of wages, medical and hospital care if necessary, and, in the case of fatal accident, compensation to the widow and children.

In most provinces the general basis of allowance for total disability is two-thirds of the worker's previous average earnings, certain minima being provided for those with low earnings. For partial disability, compensation is usually based on two-thirds of the loss of earning capacity. In cases of fatal accidents monthly pension allowances are fixed for widows and children.

Medical and hospital benefits, which have been referred to previously, are limited only by medical need, and extensive modern programmes of rehabilitation have been developed in some provinces to assist workers to regain lost earning capacity.

Procedure of the boards is informal and summary; in Ontario, cheques are usually issued within three days of the occurrence of an industrial accident. Decisions of the boards are ordinarily not subject to appeal, and reconsideration of cases is freely given.

Workmen's compensation boards carry on active programmes of accident prevention education and the success of their efforts has been reflected in a steadily diminishing accident rate.

Public Assistance

Old Age Pensions.—Non-contributory pensions for the aged are paid on the basis of need to persons 70 years of age and over who fulfil the 20-year residence requirement. The system is made effective through co-operation between the Dominion and provincial governments, the federal government paying 75 per cent of the net cost of pensions, and the provinces the remaining 25 per cent of pensions costs and the full cost of administration. The plan is administered by provincial governments, subject to federal regulation and audit control.

The maximum pension payable is $360 per year, a maximum income (including the pension), of $600 for unmarried persons and $1,080 for married persons, being allowed under the means-test provision. Supplementary allowances, ranging in amount up to $120 annually, are paid by six provinces.

At June 30, 1948 there were 235,947 persons receiving pensions. This represented 43 per cent of the estimated population over 70 years of age. The proportion varied between provinces, from 33 per cent in Ontario to 67 per cent in New Brunswick. Pension costs amounted to approximately 75 million dollars in 1947-48, exclusive of provincial supplements.

Special medical care provision for persons receiving old age pensions have been developed in Ontario, British Columbia, Saskatchewan and Alberta.

At the Dominion-Provincial Conference of 1945, it was proposed that the federal government would establish a universal system of old age pensions to provide uniform pensions to persons over 70. The programme was to have been entirely financed and administered by the Dominion government, and supplemented by a federal-provincial system of assistance for persons between the ages of 65 and 69. This proposal was not put into effect, and subsequent changes in the Old Age Pensions Act, while extending coverage, have retained the means-test principle.

Blind Pensions.—In 1937 the coverage of the old age pensions plan was extended to include blind persons over 40, and in 1947 the age of eligibility was reduced to 21. While maximum pensions are similar, means-test provisions are more generous than in the case of old age pensions. At June 30, 1948, there were 8,842 persons in receipt of blind pensions. The total cost for 1947-48, exclusive of provincial supplemental allowances comparable to those paid for old age pensions, was approximately $2,800,000.

Unemployment Relief and General Relief.—With unemployment at a minimum, relief for unemployed workers and their families has become a relatively minor function of public authorities. Along with general relief, aid to the unemployed is provided by municipal agencies on a means-test basis.

During the period of mass unemployment in the 1930's, a distinction was made between " employable " and " unemployable " groups, those in the former category only being eligible for assistance provided through Dominion grants-in-aid to provincial (and municipal) authorities. Since 1941, when Dominion assistance terminated and increased employment opportunities led to a sharp decline in the total number of public dependents, the two groups have tended to merge within the system of public welfare administration.

Provincial grants to municipal authorities for relief purposes (in some instances restricted to " unemployable " cases) are in effect in British Columbia, Saskatchewan and Ontario. In 1945, relief costs amounted to $6,500,000.

As part of the general arrangement with the provinces proposed at the Dominion-Provincial Conference of 1945, the federal government offered to accept responsibility for aid to unemployable persons, pending an extension of unemployment insurance to cover all employees. Provincial and municipal authorities would have retained responsibility for unemployables. This proposal has not been put into effect.

Public assistance institutional care is virtually non-existent in Ontario and the western provinces but the eastern provinces have continued the practice of giving institutional care to dependent adults.

Mothers' Allowances.—All provinces except Prince Edward Island provide aid for dependent children in their own homes in the form of maintenance allowances for mothers and young children, the age limit varying from 14 to 18. Full costs are met by provincial authorities, except in Alberta, where municipalities pay 25 per cent of the allowances paid to their residents.

Qualifications for eligibility vary between provinces, but generally include widowhood, mental or physical incapacitation of the husband, and desertion. Foster-parents are eligible except in Nova Scotia. In British Columbia and Saskatchewan divorced women and those with husbands in penitentiares are also eligible. In the four western provinces allowances are paid in some instances for children born out of wedlock.

Residence requirements are in effect in all provinces, and citizenship is a requirement except in Saskatchewan and Alberta.

Allowances are based on need, rates in effect varying from province to province and between rural and urban areas in the same province. In general, allowances are more adequate than those in effect in other forms of public assistance. The following table shows allowances paid in 1946.

MOTHERS' ALLOWANCES, 1946

	Families Assisted	*Children Assisted*	*Total Disbursements* $000
Nova Scotia ..	1,615	4,474	847
New Brunswick ..	1,207	3,308	488
Quebec	13,685	41,055	4,664
Ontario	8,092	15,976	3,451
Manitoba	613	1,835	354
Saskatchewan ..	2,117	4,992	869
Alberta	1,559	3,275	569
British Columbia ..	905	2,132	499
TOTAL ..	29,793	77,047	11,741

Children's Services

Child welfare authorities administer legislation relating to adoptions, guardianship, the children of unmarried parents, child protection and juvenile delinquency, as well as that respecting the maintenance of deserted wives and children. In Quebec child welfare is largely the responsibility of religious authorities, while in other provinces public agencies or voluntary groups under public supervision carry out this work. Supervision is usually exercised by child welfare divisions in provincial public welfare departments.

Municipal authorities are usually responsible for the costs of maintaining neglected children whose guardianship has been transferred by court action from their parents to the child welfare authority. In Ontario alone, this resulted in municipal payments of almost $2,000,000 in 1945-46. Supervised foster-home care of children is becoming a widely accepted practice, although child-caring institutions retain their importance in the province of Quebec. Elsewhere, they are utilised principally for children requiring specialised treatment or care because of special difficulties or handicaps. In most provinces it is illegal for children to be sent to generalised institutions where socially dependent adults are maintained.

Day nursery programmes and school care projects operated to care for children of employed mothers are relatively undeveloped in Canada, although services were provided to a limited extent in Ontario during the war, through co-operation between Dominion and provincial authorities. Most services of this type are now provided by private social agencies, although the province of Ontario meets half the cost of schemes administered by local authorities.

Corrections

The Canadian system of penal administration is not centralised, but remains under the control of different governmental authorities. Persons convicted of criminal offences and sentenced to terms of imprisonment of two years or more are confined in federal penitentiaries, while others, including juvenile offenders, are treated in provincial or local institutions or in the community under the supervision of public authorities or subsidized private agencies.

Institutional care has been the principal means of dealing with convicted offenders in Canada, there being little evidence of a trend toward "socialisation of criminal justice" and a lack of supervised probation and parole systems.

There are seven federal penitentiaries, the operation and maintenance of which cost $3,805,000 in 1946-47. There were 3,752 convicts on the register of these institutions at March 31, 1947.

No special programme of treatment has been developed for youthful offenders in federal institutions, but in some provinces attempts are being made to overcome this deficiency. In this respect, as in others, arrangements for the care of prisoners serving sentences of less than two years vary from province to province. Ontario has the most highly developed programme, with a provincial reformatory for young offenders and industrial farms. Local jails administered by country authorities care for short-term offenders.

In 1944, provincial and municipal authorities spent more than $4,200,000 on institutional treatment of adult offenders and approximately $60,000 on other forms of service for this group.

At the end of 1944, there were 6.030 persons in provincial and local correctional institutions for adults.

After an extensive study of the Canadian penal system, a Royal Commission on Penal Administration, reporting in 1938, recommended far-reaching changes in the whole programme of treatment for prisoners. While a number of changes recommended by the Commission have been put into effect, the central recommendation, for a unified penal system, has not been adopted.

Juvenile delinquents, other than those referred to children's aid societies and similar child caring agencies by the juvenile court, may be committed to special correctional institutions administered by provincial governments or private groups. In most provinces, costs for maintaining juveniles in these institutions is shared by provincial and municipal authorities, the cost in the fiscal year 1944 being more than $1,100,000. In the corresponding court year, 9,917 children had offences proven in court, two-thirds of these being classed as major offences.

EDUCATION IN CANADA

By JOHN E. ROBBINS

Director, Education Division Dominion Bureau of Statistics

MORE than 97 per cent of adult Canadians are able to read and write. On the average the young Canadian nowadays attends school for ten years, and receives at least part of a secondary education. One-quarter complete a high school education, fully 3 per cent graduate from a university, and increasing attention is being given each year to the provision of facilities for the spare-time education of adults who have discontinued full-time schooling.

Education in Canada, except for the small native Indian population, is almost entirely the financial and administrative responsibility of the provincial governments. Strictly speaking, there are as many Canadian systems of education as there are provinces, viz., nine. But in the eight dominantly English-language provinces, i.e., except in Quebec, the similarities are much more pronounced than the differences. There is, in fact, an easily discernible common pattern.

In Quebec there are, in effect, two educational systems, one for the Roman Catholic, largely French-speaking, majority, and one for the minority which is largely Protestant and English-speaking. The Quebec minority system is of the same general pattern as those of the other provinces, but the majority system, enrolling one-fourth of all Canadian children, is not. An attempt is made in the accompanying charts to express graphically the structural differences of the two patterns.

The English-Language System

The majority pattern is represented by a single straight educational highway from the first year in school to the university, with some choice of route available at the secondary stage. After eleven or twelve years on this road, during the last three of four of which the student has been learning at least one language in addition to English, he has reached the point where he may enter a university. During all these years he pays nothing for his schooling (unless he is among the 2 or 3 per cent who attend private schools) and he is obliged to attend until he is 14, 15 or 16 years of age, depending on the province in which he lives.

If he attends a private boarding school for a part or all of his elementary or secondary education, there is an annual fee that varies from $250 to $950 (for ten months, September to June) according to his age and the particular school that he attends.

To attend a university he has to pay an annual tuition fee of more than $100, but ordinarily less than $200, except in medical and engineering courses where the fee may be much higher. If he has to leave home to reach a university, he usually has to pay from $35 to $50 monthly for board and lodging. At most universities he may live either in a university residence or in an approved private boarding house. For a first or bachelor's degree he attends four or five years (longer for medicine), and may remain an additional one, two or three years for post-graduate studies at the larger universities. A full year's attendance generally begins late in September and ends in May, leaving a summer vacation of four months during which he is likely to obtain employment that will help to pay the cost of his course.

If he attends university in any one of the four western provinces (British Columbia, Alberta, Saskatchewan and Manitoba) he will receive his degree from a State-controlled, provincial university, though part of his studies may be pursued in an affiliated denominational college. In the central provinces (Ontario and Quebec) or in the Atlantic provinces (New Brunswick, Nova Scotia and Prince Edward Island) his degree may come from a provincial university or an endowed university with or without State assistance. The endowed university may or may not be denominational in control, but does not bar students because of their particular religious affiliation.

The French-Language System

The main highway in the French-language system covers only seven years. A child destined for the university then leaves the public schools and goes to a classical college, where he pays a substantial tuition fee but obtains board and lodging at a comparatively low rate. Eight years in the classical course lead to the baccalaureate which is required for admission to study for the liberal professions. The academic year in the colleges lasts about ten months, from early September to late June, the same as in the schools.

If a child remains in the public school system beyond the seventh year, he may qualify for admission to a higher technical school with university affiliation. He is much more likely than in the English-language provinces to receive his elementary and post-elementary schooling in an independent boarding school About 10 per cent of school enrolment is in these schools, most of which, like the classical colleges, are conducted by religious communities of the Roman Catholic Church, and receive financial assistance from the provincial government.

While the great majority of French-language colleges and secondary schools are in Quebec, there are some in all of the other provinces, except British Columbia and Prince Edward Island where the French-speaking population is relatively small. In the other provinces these colleges tend to emphasise bi-lingualism, and their calendars are generally published in both languages. In the most easterly provinces a few possess degree-granting powers, while in the western there are several affiliated with the three French-language universities of Central Canada: Laval University, Quebec; University of Montreal, Montreal; University of Ottawa, Ottawa.

Laval University and the University of Montreal are two of the largest in Canada. Through their faculties and affiliated schools they offer a wide variety of cultural and professional studies for higher degrees.

Students from Abroad

Several thousand students from other countries attend Canadian schools and colleges each year, the largest number from the United States but many from more distant places. Since the end of the war in 1945, and implementation of the Dominion Government's programme of assistance to enable young veterans to complete their education university enrolment has doubled. University faculties are in fact being strained to accommodate the ex-service students, and it is not possible to accept as many students from abroad as in more normal times.

While Canada offers the unusual facility of higher studies in either of two languages, it is, of course, essential to satisfactory progress, on the part of visiting students, that they should have a good command of either English or French before attempting to follow university courses. When an interested student lacks the requisite language ability it may be possible for him to obtain it, especially if he is under the age of twenty, by spending a preparatory period in a residential secondary school. The list of institutions below has been so arranged as to show separately the universities with preparatory departments or schools where a year or so might be spent as a preliminary to university studies proper. A list of independent residential schools may be obtained from the Education Branch, Dominion Bureau of Statistics, Ottawa.

By consulting the list below students at the university level should be able to enter into direct communication with one or more of the institutions most likely able to meet their educational needs. The names are listed in geographical order from east to west, and appear in the language (English or French) that is the main medium of instruction.

Universities without Preparatory Schools

The headings in this section are limited to institutions conferring degrees. Their affiliated institutions are mentioned in order to indicate something of the composition of each university system. In a few cases the affiliated Arts colleges operate preparatory or high school departments—notably the colleges of the University of Western Ontario and the University of Manitoba, but these departments do not constitute a part of the affiliation.

Dalhousie University (with which is associated the University of King's College), Halifax, N.S.—Dalhousie is an endowed, undenominational, co-educational university; (the University of King's College, teaching Arts and Theology, is Anglican in control). Degree courses in Arts, Science, Commerce, Music, Medicine, Dentistry, Law, Pharmacy and Fisheries, and the pre-specialised years of Engineering.

University of New Brunswick, Fredericton, N.B.—Undenominational, co-educational, a provincial university. Degree courses offered in Arts, Science, Applied Science and Engineering including Forestry, and Law (at Saint John, N.B.).

McGill University, Montreal, Quebec.—Endowed, undenominational, co-educational. The second largest English-language university in Canada. Degree courses in Arts, Science, Commerce, Engineering, Architecture, Medicine, Dentistry, Law, Music, Library Science, Physical Education. Diploma courses in Nursing and Social Work. Includes a Faculty of Post-Graduate Studies and Research. The Faculties of Agriculture and Household Science, and the School for Teachers are at Macdonald College some twenty miles west of Montreal. The Protestant theological colleges of Montreal are affiliated.

Queen's University, Kingston, Ontario.—Undenominational, co-educational, partially endowed, also receiving provincial grants. Degree courses in Arts, Science, Commerce, Engineering, Medicine. United Church theological college affiliated.

Carleton College, Ottawa, Ontario.—Undenominational, co-educational, supported by donations. Four years of Arts, Public Administration and Journalism, two years of Engineering.

McMaster University, Hamilton, Ontario.—Endowed, co-educational, controlled by Baptist Church. Degree courses in Arts, Science and Theology.

University of Western Ontario, London, Ontario.—Undenominational, co-educational supported mainly by provincial and city grants. Degree courses in Arts, Science, Medicine and Journalism. Special diploma courses in Public Health and Business Administration. The following Arts Colleges are affiliated: Assumption College, Windsor; Ursuline College, London; St. Peter's Seminary College, London; Waterloo College, Waterloo; Alma College, St. Thomas.

University of Toronto (with which are federated Victoria University, Trinity College and St. Michael's College), Toronto, Ontario.—Undenominational, co-educational, the provincial university of Ontario, and the largest in Canada. University College is the undenominational Arts College, and with the University are federated three denominational Arts colleges—Victoria (United Church), Trinity (Anglican Church), and St. Michael's (Roman Catholic). Its other affiliates, besides theological colleges, are the Ontario College of Pharmacy at Toronto, the Ontario College of Agriculture and the Ontario Veterinary College both at Guelph. Degree or diploma courses in Arts, Science, Applied Science and Engineering, Aeronautics, Forestry, Architecture, Household Science, Agriculture, Veterinary Science, Medicine, Dentistry, Pharmacy, Law, Music, Library Science and Pedagogy (Ontario College of Education), Physical Education, Nursing Hygiene, Occupational Therapy, Physiotherapy. The School of Graduate Studies is the largest in Canada.

Professional schools not affiliated with the University but working in collaboration, include the Ontario College of Optometry, Ontario College of Art, Royal Conservatory of Music of Toronto.

University of Manitoba, Winnipeg, Manitoba.—Undenominational, co-educational, a provincial university. In addition to the Arts work in the university itself, the Arts course is taught in five affiliated colleges: United College (United Church), St. John's College (Anglican), College St. Boniface (Roman Catholic, French-language), St. Paul's College (Roman Catholic), Brandon College (Baptist). Degree courses in the university also in Commerce, Science, Education, Engineering, Architecture, Law, Medicine, Agriculture, Household Science, Pharmacy, Social Work, and Interior Decoration.

University of Saskatchewan, Saskatoon, Saskatchewan.—Undenominational, co-educational, a provincial university. Operates a junior Arts college at Regina, Regina College, and has several affiliated junior Arts colleges at different locations in the province offering two of the four years of the Arts course. St. Thomas More College is an affiliated Roman Catholic Arts college on the university campus, and three theological colleges at Saskatoon also are affiliated. Degree courses in Arts, Science, Accounting, Education, Agriculture, Household Science, Engineering and Applied Science, Music, Pharmacy, Physical Education, Nursing, Medicine.

University of Alberta, Edmonton, Alberta.—Undenominational, co-educational, a provincial university. Affiliated with the university are St. Joseph's College (Roman Catholic) on the campus, and Mount Royal College, a junior college of the United Church at Calgary. Degree courses in Arts, Science, Commerce, Agriculture, Home

Economics, Applied Science and Engineering, Medicine, Dentistry, Nursing, Pharmacy, Law and Education.

University of British Columbia, Vancouver, B.C.—Undenominational, co-educational, a provincial university. Affiliated with it are Victoria College, a junior Arts college at Victoria, and two theological colleges at Vancouver. Degree or diploma courses in Arts, Science, Commerce, Engineering and Applied Science, Forestry, Nursing, Agriculture, Education, Social Work, Public Health, Law, Pharmacy.

Universities and Colleges with Preparatory Schools

The institutional headings in this section, as in the preceding, are arranged to indicate something of the structure of the university systems. There are separate headings only for institutions conferring degrees, except in the case of three colleges—Loyola, St. Patrick's and St. Boniface—where the language of instruction differs from the language in general use in universities of which these colleges form a part. Separate entries in these cases seem advisable to avoid confusion.

Acadia University, Wolfville, N.S.—A co-educational institution of the Baptist Church. Degree courses in Arts, Science, Household Science, Music, Education, and Theology. Diploma course in Secretarial Science and junior years of Engineering. Preparatory department, covering three or four years, known as Horton Academy, requires completion of elementary school for admission.

Mount Saint Vincent College, N.S.—A women's college conducted by the Roman Catholic Sisters of Charity. Degree courses in Arts, Secretarial Science, Home Economics, Nursing, Music, Library Science. Preparatory department known as Mount St. Vincent Academy, in which pupils are admitted from the age of six years.

St. Francis Xavier University, Antigonish, N.S.—A Roman Catholic institution for men and women, widely known for its extension work in economic co-operation. The women's section is Mount Saint Bernard College. Degree courses in Arts, Science, Household Science, Nursing. Junior years of Engineering course. A one-year preparatory class for young men above usual matriculation age. Preparatory courses for girls, age about 15 years or over, in Mount Saint Bernard Academy.

St. Mary's College, Halifax, N.S.—A Roman Catholic men's college conducted by the Jesuit Fathers. Degree courses in Arts, Science and Commerce. Junior years of Engineering course. High school or preparatory department.

Collège Ste. Anne, Church Point, N.S.—A dual-language (French and English) classical college conducted by the Eudist Fathers. Course extends over eight years, high school and college levels, leading to B.A. degree.

St. Dunstan's University, Charlottetown, P.E.I.—A Roman Catholic institution for boys and young men offering eight-year classical course leading to B.A. degree. Has degree-granting powers but is affiliated with Laval University at Quebec by which the degrees are in practice conferred.

Mount Allison University, Sackville, N.B.—A co-educational institution of the United Church. Degree courses in Arts, Science, Fine Arts, Music, Home Economics. Diploma courses in Secretarial Science, Commerce and junior years of Engineering. Preparatory work conducted in Mount Allison Academy for boys and in Mount Allison School for girls. Age of admission about nine years and up in both.

St. Thomas College, Chatham, N.B.—A Roman Catholic college for men. Degree course in Arts and Science. Preparatory department covering elementary as well as secondary years.

Université du Sacré-Coeur, Bathurst West, N.B.—A Roman Catholic, French-language, classical college for boys, conducted by the Eudist Fathers.

Université Saint-Joseph, Saint Joseph, N.B.—A Roman Catholic dual-language (French and English) Arts college for boys, conducted by the Congregation of the Holy Cross. Teaches upper elementary as well as high school and college level.

Bishop's University, Lennoxville, Quebec.—An institution of the Anglican Church for men and women conferring degrees in Arts, Music and Theology. Preparatory school for boys of ages 8-18 is Bishop's College School.

Sir George Williams College, Montreal, Quebec.—A college conducted by the Young Men's Christian Association of Montreal, for men and women, exercising degree-conferring powers in Arts, Science and Commerce. Courses also in Fine Arts, Applied Arts and Crafts. Also operates a high school department.

Loyola College, Montreal, Quebec.—An English-language college for men conducted by the Jesuit Fathers, affiliated with the University of Montreal, which grants degrees in Arts for the college course. Preparatory courses in Loyola College High School.

Université Laval, Quebec, Quebec.—One of the oldest seats of learning in Canada, and one of the two large French-language universities. Pontifical as well as civil charter. It has the following faculties: Theology, Canon Law, Philosophy, Social Science, Law, Medicine, Letters (including the Superior Normal School, and Institute of Professional Orientation), Science (including the School of Surveying and Forest Engineering, Higher School of Fisheries, School of Pharmacy, School of Mines, School of Chemistry, and School of Electricity), Agriculture (Ecole Supérieure d'Agriculture at Ste-Anne-de-la-Pocatière), Graduate School, and Faculty of Arts. The Arts Faculty includes School of Music, Higher School of Commerce, Higher School of Domestic Science (at St. Pascal), Schools of Hospital Science, and numerous affiliated institutions of higher primary and secondary education.

The affiliated boys' colleges and seminaries where the eight-year classical course for the B.A. degree may be taken are 20 in number. There are six similar institutions for girls.

Université de Montréal, Montreal, Quebec.—The largest French-language university outside France, formerly a branch of Laval University, independent since 1920. It has the following faculties in addition to Arts: Theology, Law, Medicine, Philosophy (including an Institute of Medieval Studies and Institute of Psychology), Letters, Science, Dental Surgery, Pharmacy, and School of Social Science. Affiliated professional schools are Ecole Polytechnique at Montreal, Institut Agricole at Oka with its attached Ecole de Médecine Vétérinaire, Ecole des Hautes Etudes Commerciales and Ecole d'Optométrie at Montreal. There are also two affiliated institutes of pedagogy (one for women, one for men), and an institute for the training of teachers of nursing. Associated with the University also are several schools of Music, schools of Household Science, a school of Elocution and Oratory, Librarians' and Social Workers' schools, an institute of Professional Orientation, and a school of Catholic Action.

The affiliated French-language boys' colleges and seminaries, where the eight-year classical course leading to the B.A. degree may be pursued, are 20 in number. There are five corresponding institutions for girls.

Université d'Ottawa, Ottawa, Ontario.—A bilingual institution conducted by the Oblates of Mary Immaculate. Pontifical as well as civil charter. Structure of its curriculum affected by serving both English and French language school systems. The eight-year academic course is divided between a Faculty of Arts and a high school department. Some options allowed in Arts but, as in French system, Honours (specialised) degrees are not available. Degree courses also in Theology, Canon Law, Philosophy, Commerce, Pure Science, Nursing. Operates a normal school for training bilingual teachers. Post-graduate Arts courses in evening and Saturday classes. Has several affiliated colleges in the Provinces of Saskatchewan and Alberta.

St. Patrick's College, Ottawa, Ontario.—English-language Arts college and high school conducted by the Oblates of Mary Immaculate under the same charter as the University of Ottawa.

St. Michael's College and Pontifical Institute of Medieval Studies, Toronto, Ontario.—St. Michael's is an Arts College conducted by the Basilian Fathers (in federation with the University of Toronto). It operates a high school department for boys. Girl students at the Arts and high school level, respectively, are accommodated at St. Joseph's College and Loretta Abbey College. Associated with St. Michael's College is the Pontifical Institute of Medieval Studies, a centre of post-graduate studies possessing a Papal charter.

Collège de St. Boniface, St. Boniface, Manitoba.—A French-language classical college conducted by the Jesuit Fathers for which the degrees are conferred by the University of Manitoba.

Library and Research Facilities

Persons interested primarily in research might with advantage consult the appropriate one of the following national organisations for advice:

National Research Council, Ottawa.—For inquiries relating to research in the natural and applied sciences, industrial and medical research.

Canadian Social Science Research Council, 166 *Marlborough Avenue, Ottawa.*—Founded 1940 to promote research in the social sciences—history, economics, sociology, political science, geography, social psychology, etc.

Humanities Research Council of Canada, 166 *Marlborough Avenue, Ottawa.*—Founded 1944 to promote research in language, literature, philosophy, the arts, etc.

Canadian Education Research Council, c/o Ontario College of Education, Toronto.—Founded 1938 to promote research in education.

Canadian Library Association, 46 *Elgin Street, Ottawa.*—Interested in public libraries as well as research libraries.

Canadian Arts Council, 517 *Wellington Street, W., Toronto.*—A central organisation, formed in 1945, representing sixteen national organisations, in the fields of the literary, graphic and musical arts.

Adult Education

Adult Education has developed in some distinctive ways, for many years with the active support of university Extension Departments and, in the post-war years particularly, with the assistance of Departments of Education. While there is not formally recognised responsibility on the part of the Dominion Government, certain of its agencies, including the Canadian Broadcasting Corporation, the National Film Board, and the Wartime Information Board during the war, have played important roles in the adult education movement.

In 1935 the various agencies interested in adult education came together to form the Canadian Association for Adult Education, with a full-time staff, and office now located at 340 Jarvis Street, Toronto. While basically a clearing-house, and centre of information and stimulation, it is in part a programme agency. With the assistance of the C.B.C. and the Canadian Federation of Agriculture it has developed nation-wide weekly radio forum programmes, with large listening audiences and some thousands of discussion groups. The Association's magazine, *Food for Thought*, is the main medium for news and the exchange of ideas among workers in the field of adult education. A similar, but younger, French-language association, La Societé canadienne d'enseignement postscolaire, has its headquarters at Laval University, Quebec.

With the post-war renewal of immigration from Europe on a comparatively large scale, the matter of preparing the newcomers for Canadian citizenship has assumed importance. The Canadian Citizenship Council, 46 Elgin Street, Ottawa, provides a medium for bringing together the numerous voluntary agencies concerned with this problem. The Council co-operates, too, with the recently-formed Citizenship Branch of the Department of the Secretary of State.

Interest in international matters is stimulated especially by two voluntary agencies: The Canadian Institute of International Affairs, 230 Bloor Street West, Toronto; and the United Nations Association in Canada, 124 Wellington Street, Ottawa.

Information on Canadian Education

Information on education in any one province may best be obtained from the Department of Education in the provincial capital. In addition there are some sources of information concerning education in the country as a whole, besides those of a specialised nature that have been mentioned.

The Canadian Education Association, 206 Huron Street, Toronto, is financed and controlled mainly by the Departments of Education. It publishes a quarterly, *Canadian Education*, and maintains a research and information service concerned with education in the schools.

The Canadian Teachers' Federation maintains an office in the Normal School Building, Elgin Street, Ottawa, and publishes a monthly *Newsletter*, with information of particular interest to members of the provincial federations.

The National Conference of Canadian Universities does not maintain an office, but publishes a report of its annual meeting. The Secretary may be addressed in care of the registrar's office, McGill University, Montreal.

The Education Division, Dominion Bureau of Statistics, Ottawa, publishes periodical reports on schools and universities in Canada.

THE CINEMA AND THE PRESS IN CANADA

By JACK GOLDING

SPECIAL CORRESPONDENT *Winnipeg Free Press*

CANADA'S three most important media for reaching the public, as in other countries, are (1) the cinema and legitimate theatre; (2) the Press; (3) the wireless or radio.

Radio, largely invested in The Canadian Broadcasting Corporation, is a government controlled institution. The C.B.C. and privately owned radio stations are the only means of reaching a minority of people who live in outlying areas, particularly in the northland and in remote parts of the eastern and western coastal waters. Radio is commercialised in Canada, unlike the B.B.C. of the United Kingdom, and much can be said for and against the use of the air as an advertising medium. Certainly it gives the listening public a wide variety of entertainment and a guarantee of radio coverage of all events of national importance.

The Cinema and Stage

Insofar as the legitimate stage and cinemas are concerned in Canada, the picture is roughly this: There are only five legitimate theatres in the whole of the Dominion. They are His Majesty's Theatre, Montreal; The Gayety Theatres, Montreal (burlesque); The Royal Alexandra, Toronto; Massey Hall, Toronto, and The Grand Theatre, London, Ontario.

The Grand Theatre is owned by the London Little Theatre Group but is available for commercial companies. Occasionally touring dramatic companies do visit other centres, however, and give performances in auditoriums not regarded as among the legitimate theatres. These visiting theatrical groups make special arrangements when not in legitimate theatre centres. The development of amateur theatricals is dealt with elsewhere in this book.

But Canada has many cinemas, commonly known in the Dominion as moving picture theatres. A summary of motion picture statistics given in Table No. I, outlines the number of such entertainment houses, receipts, amusement taxes and paid admissions. Table No. II, gives a profile of motion picture receipts in Canada in 1930, 1933, 1941, 1944 and 1945 for comparison.

The main theatre chains operating in Canda in 1946 are shown in Table No. III, but the big tussle competitively is between The Famous Players Group and J. Arthur Rank's Odeon circuit. The British Rank group is building a chain across the country and in 1946 planned 65 new cinemas. Already well established, the Famous Players people had blueprints for 50 new moving picture houses.

Answering the question, " How many films are needed in Canada each year?" A quick survey a few years ago disclosed that 470 films were submitted for censorship. Of these, 95 per cent came from the U.S.A., five per cent from Great Britain and elsewhere, but mainly Great Britain.

There were 1,715 features and short subjects from the United States and 54 from Great Britain. The preference remains in favour of U.S. film productions but there is a rapidly growing popularity for British films, especially if particular stars play leading rôles. British films could not compete with U.S. types between 10 and 20 years ago but the brilliant change-over of recent years has had its effect on pro-British Canada.

With regard to local film production in Canada, there are many non-theatrical and a few theatrical shorts; some topical features and a great deal of location shooting for Hollywood productions. National Film Board (Government of Canada) shorts are released through United Artists. There are five commercial studios in the Dominion and more are being constructed.

French language films are shown mostly in the Province of Quebec but the popular languages for sub-titling in English are French and Russian, or at least they were as recently as a year and a half ago.

Highlights of a recent survey of the motion picture industry, made by the Dominion Statistician, Mr. Herbert Marshall, are:—

(1) Motion picture theatre attendance and box office receipts for 1945 reached an all-time record according to statements received in the annual survey of motion picture houses conducted by the Dominion Bureau of Statistics.

(2) Apart from established cinemas there were 167 itinerant exhibitors who reported net receipts of over 360,000 dollars.

(3) The per capita expenditure on motion picture entertainment, including both theatres and itinerant exhibitors, averaged 5·57 (dollars and cents). In order of expenditure the provinces ranked: British Columbia, Ontario, Nova Scotia, Alberta, Manitoba, New Brunswick, Quebec, Saskatchewan and Prince Edward Island.

(4) Double-feature bills continued to attract the largest number of theatre-goers. The proportion of double-single feature programmes shown during 1945 remained almost unchanged from the previous year, the ratios for 1945 standing at 59·4 per cent for double features and 40·6 per cent for single features compared with 59·6 and 40·4 for the previous year.

(5) While 27 per cent of the motion picture theatres showed only double feature programmes, these houses accounted for 37 per cent of the total receipts and 41 per cent of the paid admissions of the year.

(6) Classified according to ownership, there were 618 individually-owned theatres or about 46 per cent and they realised roughly 21 per cent of admissions. Multiple establishments (two or three theatres operated under the same ownership) accounted for 9·8 per cent of total attendances reported. Chains of theatres, four or more theatres under one ownership, tallied 68·8 per cent of admissions.

(7) While the average price of admission for all theatres was 25·7 cents the average admission fee for individual theatres varied between those below 20 cents and those at 50 cents. These statistics do not allow for juvenile or matinée attendances.

(8) The 23 film exchange companies operating in Canada maintained 86 distributing offices and utilised the services of more than 1,000 employees. Total receipts

for film rentals amounted to more than 17 million dollars about one eighth of which was for 16 mm. films and the rest 35 mm. films. The exchanges stated that 2,161 new films had been released during the year and they were comprised of 620 feature films, 345 cartoons, 381 newsreels and 815 of a miscellaneous nature.

Cinemas in large cities are modern, comfortable and expensively decorated. Smoking, generally, is not permissible nor can alcoholic drinks (including beer) be obtained. In rural centres, cinemas range from capacities of 150 to 500, while in cities up to 3,000 can be accommodated. New style cinemas, those built within the past decade, are modern and attractive. In the absence, comparatively, of the legitimate theatre, Canadians find their most popular national enjoyment in the movie theatre—that is, second to outdoor pleasures.

The Press

The press world of Canada may be roughly defined under the following headings:—

1. The Canadian Press, a non-profit news gathering agency supported by some 90 Canadian newspapers. It might be called the Reuters of Canada.
2. British United Press, a news gathering agency.
3. The Southam Group of newspapers.
4. The Sifton Group of newspapers.
5. The Montreal Star-Standard Group with its fast-developing Canada-wide features syndication department.
6. Strong assortment of individually owned dailies and weeklies.

Table No. IV gives a breakdown of prominent Canadian newspapers showing location, name, circulation as at April 1948, publisher and editor. And Table No. V provides a profile of numbers and circulations of daily and weekly English language newspapers in urban centres of 20,000 population or over in 1945 and 1946.

Table No. VI give numbers and circulations of daily and weekly French language newspapers by province, the same in urban centres of 20,000 population or more, daily and weekly foreign language newspapers, numbers and circulations of other than newspapers by frequency of issue and numbers and circulations of magazine and other publications by type during the years 1945 and 1946.

Three main types of newspapers are published in the Dominion:—(1) English language; (2) French language; and (3) Foreign language. As French is one of Canada's official languages, it is natural that the Province of Quebec should be the area in which French language press has its widest circulation, and has had for about 60 years. Ten out of 11 French newspapers are published in Quebec and one in Ontario.

Almost 95 per cent of the total circulation of French and English newspapers is in areas of 20,000 population or more. Weekly newspapers have a wider distribution with about 61 per cent of circulation in centres of more than 20,000 people with French language weeklies at 77 per cent.

Foreign language papers in Canada are stated to have a circulation of 190,500 copies weekly. They are largely broken down into the following groups, Ukranian, 64,937; German, 32,165; Yiddish, 28,262 and Polish, 15,157.

In connection with the advertising value of Canadian newspapers, a check made by The Canadian Daily Newspapers Association in 1947 brings to light the interesting fact that two thirds of all retail sales in Canada take place in cities where a daily newspaper is published. As approximately 50 per cent of the people of Canada are of British origin, it might be expected that roughly that percentage would be interested in the purchase of British goods. More than 80 per cent of the people who responded to the association's questionnaire stated a preference for British goods if they were available.

The Royal Bank of Canada published an article on Canada's newspapers in September, 1947, and its objective perspective of the journalistic scene in the Dominion contains comments on the press born of a big business attitude.

Some quotations from that fine evaluation:—

(1) " Whether it is a weekly or daily, the newspaper is made by men who are much alike. Editors have been described as cub reporters who have grown up and settled down. They have overcome their urge to participate in every event . . . their new duty is to see the whole show and to do that they must stay in their seats. The great editors are not speech-making crusaders but people who know how to get the news, get it right, get it first, get it into print and comment on it intelligently."

(2) " . . . . it would be well to make a courtesy reference to the business departments. Circulations have increased greatly in recent years, indicating that editorial departments are filling a public need in their presentation of news and views. In February this year, the President of the Canadian Daily Newspapers Association said combined circulation of Canadian dailies had reached a total of 2,860,000, actually higher than the number of families in the Dominion. This was an increase of 733,000 since 1938."

(3) " Advertising departments, too, report themselves in healthy condition. Total expenditures by Canada's 100 biggest advertisers in 1946 in 90 dailies, four weekend papers, 15 magazines and 14 farm papers amounted to 13·3 millions of dollars or an increase of 8·4 per cent over 1945."

In the overall picture, Canadian newspapers use 42 per cent news to 58 per cent advertising, the text book proportions being 40 per cent news and 60 advertising.

To use the words of Gillis Purcell, General Manager, The Canadain Press:—

" Canadian newspapers present a news picture of the world as complete as that presented in any country. In many ways, it is more accurately drawn.

" If you regard as the ideal a paper like *The Times* in London, or the *New York Times*, Canadian newspapers as a whole rank closer to this conception than do newspapers generally in the United Kingdom or the United States. You find the news of the world reported broadly, objectively and fully in virtually every Canadian daily, large or small.

" News is handled ' straight ' in virtually every case; editorial comment goes in the editorial columns. With no comparable concentrations of population, Canada has not the million and more circulation papers, whose news handling in New York and London is aimed solely at circulation and opinion making.

" In the Canadian West there is no tendency to ditch world news as there is generally, with the exception of a half a dozen outstanding papers—in the United States Middle West and West. Nor is there the concentration on local news that marks so many of the British provincial papers.

" It's the nature of the country and its people that makes Canada's papers so fair and open of mind in handling news. The country is small enough in point of population to have to look out on the world. Its people have learned to be friends of great nations, sometimes not too friendly with one another.

"In its exchange of Canadian news across the Dominion, The Canadian Press has been one of the great factors in building national unity. But C.P.'s balanced objectivity in handling world news is primarily a reflection of the nature of the Canadian people."

TABLE I
SUMMARY OF MOTION PICTURE STATISTICS, BY PROVINCES, 1946

Province	*No. of Theatres*	*Receipts*[1]	*Amusement Taxes*	*Paid Admissions*
		$	$	*No.*
CANADA ..	1,477	59,793,215	15,024,547	227,425,905
Prince Edward Island	10	223,804	68,011	827,387
Nova Scotia	71	2,953,633	902,977	12,382,913
New Brunswick	44	1,758,866	526,784	7,341,407
Quebec	250	12,732,391	4,372,021	47,133,384
Ontario	420	25,684,210	5,129,890	96,996,280
Manitoba	137	3,433,687	803,158	14,152,362
Saskatchewan	240	2,889,343	631,563	10,639,915
Alberta	156	3,626,140	994,933	13,317,734
British Columbia[2]	149	6,491,141	1,595,210	24,634,523

[1] Not including amusement taxes. [2] Includes Yukon and Northwest Territories.

TABLE II
MOTION-PICTURE THEATRE RECEIPTS, BY PROVINCES, 1930, 1933, 1941, 1944 AND 1945

(Exclusive of amusement taxes)

Province	1930	1933	1941	1944	1945
	$	$	$	$	$
Prince Edward Island	188,300	85,700	141,317	230,550	224,697
Nova Scotia	1,814,500	933,300	2,195,599	3,141,049	3,112,340
New Brunswick	1,093,400	556,500	1,102,265	1,595,130	1,702,869
Quebec	8,301,800	5,510,500	8,047,022	10,983,139	11,490,406
Ontario	15,900,900	10,960,200	18,757,372	22,542,943	23,740,894
Manitoba	2,712,800	1,820,700	2,475,949	2,930,435	3,066,871
Saskatchewan	1,977,300	1,069,300	1,673,313	2,347,726	2,553,779
Alberta	2,323,700	1,465,300	2,257,115	3,383,994	3,394,488
British Columbia[1]	4,166,800	2,552,700	4,145,945	6,018,359	6,144,367
TOTALS ..	38,479,500	24,954,200	40,795,897	53,173,325	55,430,711

[1] Includes Yukon.

TABLE III
THEATRE CHAINS OPERATING IN CANADA, 1946

Franklin and Herschorn Theatre Co., Ltd.	404 Barrington St., Halifax, N.S.
B. & L. Theatres	89 Union St., S. John, N.B.
S. F. A. Ltd.	40 Charlotte St., St. John, N.B.
F. G. Spencer	95 Charlotte St., St. John, N. B.
M. E. Beaumont	623 rue St. Jean, Quebec, Que.
Leo Choquette	111 St. Catherine St., Outremont, (Montreal), Que.
Compagnie France-Film	637 ouest, rue Craig, Montreal, Que.
Confederation Amusements Ltd. ..	5887 Monkland Ave., Montreal, Que.
Hollywood Amusement Corp. ..	4015 St. Lawrence Blvd., Montreal, Que.
United Amusements Ltd. ..	5887 Monkland Ave., Montreal, Que.
Famous Players	Royal Bank Bld., Toronto, Ont.
Foto-Nite Amateur Shows, Ltd. ..	501 Hermont Bldg., 21 Dundas Sq., Toronto, Ont.
Robt. Hambleton	Simcoe, Ont.
National Theatre Services ..	8th Floor, Hermont Bldg., 21 Dundas Sq., Toronto, Ont.
Odeon Theatres of Canada, Ltd. ..	Royal Bank Building, Toronto, Ont.
Ottawa Valley Amusement Co. ..	Renfrew, Ont.
Premier Operating Corp., Ltd. ..	Albion Bldg., 72 Carlton St., Toronto 2, Ont.
Rotenburg Theatres	550 Queen St., W., Toronto, Ont.
Mrs. F. Sutherland	St. Mary's, Ont.
Theatre Holding Corp., Ltd. ..	Albion Bldg., 72 Carlton St., Toronto 2, Ont.
Twinex Century Corp., Ltd. ..	21 Dundas Sq., Toronto, Ont.
United Amusements Co. Ltd. ..	241 Kenilworth Ave. N., Hamilton, Ont.
Allied Anusements, Ltd.	300 New Hargrave Bldg., Winnipeg, Man.
Leon Asper	Carman, Man.
Manitoba Theatres, Ltd.	559 Main St., Winnipeg, Man.
H. Prygrocki	1837 Portage Ave. (St. James), Winnipeg, Man.
Rothstein Theatres, Ltd. ..	Marlborough Hotel, Winnipeg, Man.
Western Theatres, Ltd.	300 New Hargrave Bldg., Winnipeg, Man.
H. S. Humphrey	Grenfell, Sask.
R. R. Kiefer	Hardisty, Alta.
J. L. Murphy	425 Scarbora Ave., Calgary, Alta.
Odeon Mid-Western Theatres, Ltd.	9420-118 A. Ave., Edmonton, Alta.
Purnell and Sons	Blairmore, Alta.
Sharp's Circuit Shows	8th Ave. and 6th St., Calgary, Alta.

TABLE IV

ALBERTA

City	Name	Circulation	Pub. and Editor
CALGARY	Albertan (*m*) (*I*)	21,385	Albertan Pub. Co., Ltd. A. M. Raymond(*e*).
	Hearld (*e*) (*I*)	44,645	Southam & Co., Ltd. A. H. Bill (*e*.)
EDMONTON	Bulletin (*e*) (*I*)	18,666	Alberta Free Press, Ltd. John Howey (*e*).
	Journal (*e*) (*I*)	45,973	Edmonton Journal Div. of Southams. J. Dixon Craig (*e*).
LETHBRIDGE	Herald (*e*) (*I-L*)	10,725	Lethbridge Herald Co., Ltd. W. A. Buchanan (*e*).
MEDICINE HAT	News (*e*) (*Li*)	3.517	Medicine Hat News, Ltd. W. H. Hogle (*e*).

BRITISH COLUMBIA

City	Name	Circulation	Pub. and Editor
NANAIMO	Free Press (*e*) (*I*)	5,155	Nanaimo Free Press, Ltd. W. A. Barnes (*e*).
NELSON	News (*m*) (*I*)	7,132	News Pub. Co., Ltd. F. F. Payne (*e*).
NEW WESTMINSTER	British Columbia (*e*) (*I*)	6,672	Columbian Co., Ltd. R. A. McLellan (*e*).
PRINCE RUPERT	News (*e*) (*I*)	2,824	PR Daily News, Ltd. G. A. Hunter (*me*).
TRAIL	Times (*e*) (*I*)	4,199	Trail Times, Ltd. R. L. Costello (*e*).
VANCOUVER	News-Herald (*m*) (*I*)	40,714	News Herald, Ltd. Kenneth Drury (*e*)
	Province (*e*) (*I*)	95,570	Vancouver Daily Province Div., Southams. H. H. C. Anderson (*e*).
	Sun (*e*) (*I-L*)	130,966	Sun Pub. Co., Ltd. Roy W. Brown (*e*).
VICTORIA	Colonist (*m ex Mon*)	22,248	Colonist Pub. Co., Ltd. H. Sandham Graves (*e*).
	Colonist (*Sunday*)	25,973	
	Times (*e*) (*Li*)	19,324	Times P. & P. Co., Ltd. H. P. Hodges (*e*).

MANITOBA

City	Name	Circulation	Pub. and Editor
BRANDON	Sun (*e*) (*I*)	6,075	Sun Pub. Co., Ltd. William Noakes (*e*).
PORTAGE LA PRAIRIE	Graphic (*e*) (*I*)	1,994	Graphic Printing Co., Ltd. W. H. Vopni (*e*).
THE PAS	Northern Mail (*e*) (*I*)	1,608	Northern Mail, Ltd. Robert Taylor (*e*).
WINNIPEG	Free Press (*e*) (*I-L*)	92,664	Winnipeg Free Press Co., Ltd. Grant Dexter (*exec-ed*)
	Tribune (*e*) (*I*)	53,798	Winnipeg Trib. Div. of Southams. G. Carlyle Allison (*e*).
	Citizen (*m*) (*I*)	25,000	Winnipeg Citizen Coop Pub. Co. W. H. Metcalfe (*me*).

NEW BRUNSWICK

City	Name	Circulation	Pub. and Editor
FREDERICTON	Gleaner (*e*)		Gleaner, Ltd.
MONCTON	Times (*m*) (*I-L*)	8,517	Moncton Publishers, Ltd. A. J. Hickes (*e*).
	Transcript (*e*)	9,569	
	Combined daily (*me*)	18,086	
SAINT JOHN	Telegraph-Journal (*m*) (*I*)	24,197	N. B. Pub. Co., Ltd. H. G. Christie (*e*).
	Times-Globe (*e*)	20,320	
	Combined Daily (*me*)	44,517	

NOVA SCOTIA

City	Name	Circulation	Pub. and Editor
AMHERST	News (*e*) (*PC*)	2,234	News-Sentinel Ltd. Norman S. Sandford (*e*).
GLACE BAY	Gazette (*e*) (*La-CCF*)	4,280	United Mine Workers of America. Dist. 26, F. Gates (*me*)
HALIFAX	Chronicle (*m*) (*Li*)	14,153	Chronicle Co., Ltd. B. E. Robinson (*e*).
	Star (*e*)	10,339	
	Comb. Daily (*me*)	24,492	
	Herald (*m*) (*I*)	54,068	Halifax Herald Ltd. E. E. Kelley (*e*).
	Mail (*e*)	34,490	
	Comb. Daily (*me*)	88,558	
NEW GLASGOW	News (*e*) (*PC*)	6,475	Scotia Printers, Ltd. J. R. H. Sutherland (*me*)
SYDNEY	Post Record (*e*) (*I*)	21,485	Post Pub. Co., Ltd. R. G. Urquhart (*e*).
TRURO	News (*e*)	2,996	News Pub. Co., Ltd. J. M. Murphy (*e*).

TABLE IV—*cont.*

ONTARIO

City	*Name*	*Circulation*	*Pub. and Editor*
Belleville	Ontario-Intelligencer (*e*) (*I*)	8,151	Ont. Intell., Ltd. F. W. Rathman (*e*).
Brantford	Expositor (*e*) (*I*)	15,981	Preston and Sons, Ltd. C. F. Sanders (*e*).
Brockville	Recorder and Times (*e*) (*I-L*)	6,933	Rec. Print. Co., Ltd. H. R. Morgan (*e*).
Chatham	News (*e*) (*I*)	11,478	Thomson Pub. Co., Ltd. Joseph Emmott (*e*).
Cornwall	Standard-Freeholder (*e*) (*I*)	9,132	Stan. Freeholder, Ltd. J. B. McKay (*e*).
Fort William	Times-Journal (*e*) (*I*)	11,794	T-J of F. W., Ltd. W. H. Goodman (*e*)
Galt	Reporter (*e*) (*I*)	8,530	Thomson Co., Ltd. Earl Werstine (*e*)
Guelph	Mercury (*e*) (*I*)	11,182	Thomson Co., Ltd. A. M. Macalister (*e*)
Hamilton	Spectator (*e*) (*I*)	67,487	Southams. F. I. Ker (*e*).
Kingston	Whig-Standard (*e*) (*I-L*)	16,495	Kingston W-S Co., Ltd. Hon Rupert Davies (*e*).
Kirkland Lake	Northern News (*e*) (*I*)	5,265	Thomson Pub. Co. R. P. Young (*e*).
Kitchener Waterloo	Record (*e*) (*I*)	19,990	News Record, Ltd. John E. Motz (*e*).
Lindsay	Post (*e*)	1,903	G. H. Wilson, publisher.
London	Free Press (*m*) (*I*)	38,907	London F-P Ptg. Co. A. R. Ford (*ed in ch*).
	Free Press (*e*)	28,077	
	Comb. Daily (*me*)	66,984	
Niagara Falls	Review (*e*) (*I*)	9,521	F. H. Leslie, Ltd. J. M. Cowan (*e*).
North Bay	Nugget (*e*) (*I*)	7,346	Nugget Pub. Co., Ltd. C. M. Fellman (*e*).
Oshawa	Times-Gazette (*e*) (*I*)	7,599	Times Pub. Co. of Oshawa, Ltd. W. Ford Lindsay (*e*).
Ottawa	Citizen (*m*) (*I-L*)	8,986	Southams. A. C. Cummings (*e*).
	Citizen (*e*)	39,471	
	Comb. Daily (*me*)	48,457	
	Le Droit (French) (*e*) (*I*)	24,502	Le Syndicat d'Oeuvres Sociales Ltee. Camille l'Heureux (*e*)
	Journal (*m*) (*I*)	12,994	Journal Pub. Co. of Ottawa, Ltd. E. Norman Smith (*e*).
	Journal (*e*)	45,569	
	Comb. Daily (*me*)	58,563	
Owen Sound	Sun-Times (*e*) (*I*)	11,241	Fleming Pub. Co., Ltd. Arthur Davidson (*e*).
Peterborough	Examiner (*e*) (*I*)	13,376	P-E Co., Ltd. R. Davies (*e*).
Port Arthur	News-Chronicle (*e*) (*I-L*)	10,286	N-C Pub. Co., Ltd. O. F. Young (*e*).
Port Hope	Guide (*e*) (*I*)	1,699	G. Wilson & Son Pub. Co. H. B. Crow (*e*).
St Catherines	Standard (*e*) (*I*)	16,175	St. C. Standard, Ltd. H. L. Walsh (*e*).
St. Thomas	Times-Journal (*e*) (*I*)	10,075	T-J of St. T., Ltd. Thomas Keith (*e*).
Sarnia	Canadian Observer (*e*) (*I*)	9,816	Thomson Pub. Co., Ltd. O. N. Wilson (*e*).
Sault Ste. Marie	Star (*e*) (*I*)	9,095	Sault Star, Ltd. R. L. Curran (*e*).
Stratford	Beacon-Herald (*e*) (*I*)	10,177	B-H of S., Ltd. C.D. Dingman (*e*).
Sudbury	Star (*e*) (*I*)	13,275	Sudbury Star, Ltd. W. E. Mason (*me*).
Timmins	Press (*e*) (*I*)	11,224	Thomson Co., Ltd. W. J. Marks (*e*).
Toronto	Commercial News and Bldg. Record (*d ex Sat*)	3,220	Daily Comm. News, Ltd.
	Globe and Mail (*m*) (*I*)	204,215	Globe Printing Co. Oakley Dalgleigh (*e*).
	Star (*e*) (*I-L*)	346,538	Toronto Star, Ltd. G. H. Maitland (*e in ch*).
	Star Weekly (*Sat*)	901,639	” ” ” ”
	Telegram (*e*) (*I-PC*)	185,746	Trustees of J. Ross Robertson Estate. C.O. Knowles (*e*).
Welland Port Colborne	W-PC Tribune (*e*) (*I*)	8,981	Thomson Co., Ltd. H. J. Foster (*e*).
Windsor	Star (*e*) (*I*)	62,645	Star Pub. Co. of W., Ltd. W. L. Clark (*e*).
Woodstock-Ingersoll	Sentinel-Review (*e*) (*I*)	8,282	Thomson Co., Ltd. C. Kinsey (*e*).
PRINCE EDWARD ISLAND			
Charlottetown	Guardian (*m*) (*I-PC*)	10,838	Island Guard. Pub. Co. J. R. Burnett (*e*).
	Patriot (*e*) (*I*)	6,420	Patroit Pub. Co. C. J. Mitchell (*ce*).
QUEBEC			
Granby	La Voix de l'Est (French) (*e*) (*I*)	5,486	La Voix de l'Est Ltee. Rolland Gagne (*e*).

TABLE IV—*cont.*

City	*Name*	*Circulation*	*Pub. and Editor*
	QUEBEC—*cont.*		
MONTREAL	Le Canada (French) (*m*) (*Li*)	24,219	La Cie de Publication du Canada, Ltee. G R. Poulin (*me*).
	Le Devoir (French) (*e*) (*I*)	17,824	Imprimerie Populaire, Ltee. Omer Heroux (*e*).
	Gazette (*m*) (*I-PC*)	49,951	Gazette Ptg. Co., Ltd. C. H. Peters (*e*).
	Herald (*e ex Sat*)	38,021	Herald Pub. Co., Ltd. R. C. Hanson (*e*).
	Saturday Edition	25,472	,, ,, ,, ,,
	Montreal-Matin (French) (*m*) (*Nat'l Union*)	26,922	Fed. des Journal, Canada. R. Duhamel (*e*).
	La Patrie (French) (*e ex Sat*) (*I*)	18,896	La Patrie Pub. Co. O. Mayrand (*e*)
	Saturday Edition	40,533	
	Sunday Edition	244,776	
	Sat. and Sun.	285,309	
	Le Petit Journal (French) (*S*) (*I*)	173,590	Le Petit Journal, Inc. Fernand Denis (*e*).
	La Presse (French) Canadian Edition (*e ex Sat*)	221,232	La Compagnie de Publication de la Press, Ltee. Eugene Lamarche (*me*).
	Saturday	251,285	
	U.S.A. Edition (*e ex Sat*)	7,844	
	Saturday	7,838	
	Total Circulation—(*e ex Sat.*)	229,076	
	Saturday	259,123	
	Standard (*Sat.*) (*I*)	295,509	Mtl. Stan. Pub. Co., Ltd. J. G. McConnell (*e*)
	Star (*e*) (*I*)	147,213	Mtl. Star Co., Ltd. G. V. Ferguson (*e*).
QUEBEC	Chronicle-Telegraph (*e*) (*I*)	5,016	Quebec Newspapers, Ltd. A. G. Penny (*e*).
	L'Action Catholique (French) (*e*) (*I*)	83,411	L'Action Sociale, Ltee. L. P. Roy (*e*).
	L'Evenement Journal (French) (*m*) (*I-L*)	12,217	Le Soleil, Ltee. J. E. Barnard (*e*).
	Le Soleil (French (*e*)	98,431	,, ,, ,,
	Combined Daily (*me*)	110,648	,, ,, ,,
SHERBROOKE	La Tribune (French) (*e*)	16,108	La Tribune, Ltee. L. P. Robidoux (*me*).
	Record (*e*) (*I*)	9,024	Sherb. Rec. Co., Ltd. John Bassett, jr. (*e*).
THREE RIVERS	Le Nouvelliste (French) (*e*) (*I*)	18,796	La Cie de Pub. du Nouvelliste, Ltee. Emile Jean (*me*).
	SASKATCHEWAN		
MOOSE JAW	Times-Herald (*e*) (*I*)	7,436	Moose Jaw T-H, Ltd. F. Workman (*e*).
PRINCE ALBERT	Herald (*e*) (*I*)	5,248	Herald Ptg. Co., Ltd. Burton Lewis (*e*).
REGINA	Leader Post (*e*) (*I-L*)	38,806	L-P., Ltd. D. B. Rogers (*e*).
SASKATOON	Star Phoenix (*e*) (*I-L*)	28,424	Sask. S-P., Ltd. B. T. Richardson (*e*).
	NEWFOUNDLAND		
ST. JOHN'S	News (*m*) (*I*)		Robinson and Co., Ltd. Hon. J. S. Currie (*e*).
	Telegram (*e*) (*I*)	11,043	Eve. Teleg., Ltd. C. E. A. Jeffery (*e*).

SYMBOLS USED

m—Morning.
e—Evening.
me—Morning and Evening.
I—Independent.
I-L—Independent Labour.

Li—Liberal.
La—Labour.
PC—Progressive Conservative.
IPC—Indep. Progress. Conserv.
La-CCF—Labour-CCF.

e—Editor.
me—Managing Editor.
exec-e—Executive Editor.
ed in ch—Editor in Chief.
ce—City Editor.

TABLE V

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY ENGLISH-LANGUAGE NEWSPAPERS, IN URBAN CENTRES OF 20,000 POPULATION OR OVER, 1945 AND 1946

Statistics based on *Canadian Advertising*

Urban Centre	*Census* 1941		1946			
	Population	*Households*	*Daily*		*Weekly*	
	No.	*No.*	*No.*	*Circulation*	*No.*	*Circulation*
Montreal	903,007	203,685	3	223,277	3	322,105
Toronto	667,457	175,736	3	667,106	3	923,293
Vancouver	275,353	80,826	3	255,156	1	2,550
Winnipeg	221,960	59,607	2	132,721	2	4,109
Hamilton	166,337	43,076	1	71,486	Nil	—
Ottawa	154,951	35,601	2	100,616	„	—
Quebec	150,757	28,170	1	5,206	„	—
Windsor	105,311	26,126	1	61,592	„	—
Edmonton	93,817	24,700	2	63,149	1	2,000
Calgary	88,904	25,387	2	58,743	Nil	—
London	78,264	21,050	1	64,863	„	—
Halifax	70,488	15,089	2	119,293	„	—
Verdun	67,349	16,184	Nil	—	2	27,436
Regina	58,245	15,390	1	38,366	1	1,947
Saint John	51,741	12,241	1	41,762	1	5,100
Victoria	44,068	13,236	2	38,700	1	23,943
Saskatoon	43,027	11,461	1	27,128	Nil	—
Three Rivers	42,007	7,688	Nil	—	1	3,810
Sherbrooke	35,965	7,770	1	9,310	1	1,420
Kitchener	35,657	9,215	1	19,810	Nil	—
Hull	32,947	6,427	Nil	—	„	—
Sudbury	32,203	7,685	1	—	1	1,500
Brantford	31,948	8,543	1	15,295	Nil	—
Fort William	30,585	6,763	1	10,990	„	—
St. Catherines	30,275	8,008	1	16,019	„	—
Kingston	30,126	7,226	1	16,291	„	—
Oshawa	28,813	6,837	Nil	—	1	9,923
Timmins	28,790	6,691	1	9,090	1	2,897
Sydney	28,305	5,703	1	21,558	Nil	—
Sault Ste. Marie	25,794	6,307	1	9,401	„	—
Peterborough	25,350	6,364	1	12,743	1	7,550
Glace Bay	25,147	4,828	1	—	Nil	—
Port Arthur	24,426	5,920	1	9,390	„	—
Guelph	23,273	5,939	1	10,367	„	—
Moncton	22,763	5,121	1	16,304	„	—
New Westminster	21,967	5,806	1	6,429	1	5,259
Moose Jaw	20,753	5,424	1	7,092	Nil	—
Niagara Falls	20,589	5,235	1	9,660	„	—
Shawinigan Falls	20,325	3,820	Nil	—	1	2,450
Lachine	20,051	4,258	„	—	1	6,500

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[1] Not all given.

TABLE VI

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY FRENCH-LANGUAGE NEWSPAPERS IN URBAN CENTRES OF 20,000 POPULATION OR OVER, 1946

Statistics based on *Canadian Advertising*

Urban Centre	*Census*, 1941		1946			
	Population	*Households*	*Daily*		*Weekly*	
	No.	*No.*	*No.*	*Circulation*	*No.*	*Circulation*
Montreal	903,007	203,685	5	304,256	7	842,885
Winnipeg	221,960	59,607	Nil	—	1	8,161
Ottawa	154,951	35,601	1	23,432	Nil	—
Quebec	150,757	28,170	2	189,184	1	17,500
Edmonton	93,817	24,700	Nil	—	1	3,760
Three Rivers	42,007	7,688	1	16,839	2	6,068
Sherbrooke	35,965	7,770	1	13,457	1	27,737
Hull	32,947	6,427	Nil	—	2	7,106
Sudbury	32,203	7,685	„	—	1	1,860
Moncton	22,763	5,121	„	—	1	9,717
Shawinigan Falls	20,325	3,820	„	—	5	11,372

[1] Not given in all cases.

TABLE VI

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY FOREIGN-LANGUAGE NEWSPAPERS, 1946

Statistics based on *Canadian Advertising*

Language	1946			
	Daily		*Weekly*	
	No.	*Circulation*	*No.*	*Circulation*
Bulgarian	Nil	—	1	1,000
Chinese	4	[2]	Nil	—
Finnish	Nil	—	2	7,600
German	„	—	7	32,165
Hungarian	„	—	1	3,450
Icelandic	„	—	3	13,425
Lithuanian	„	—	1	[2]
Norwegian	„	—	1	6,422
Polish	„	—	3	15,157
Slovak	„	—	1	2,500
Swedish	„	—	3	13,099
Ukrainian	„	—	6	64,937
Yiddish	2	[2]	3	28,262
Yugoslav	Nil	—	1	2,500

[1] Not given in all cases.

[2] Circulation not available.

TABLE VI

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY FRENCH-LANGUAGE NEWSPAPERS BY PROVINCES, 1946

Statistics based on *Canadian Advertising*

Province	1946			
	Daily		*Weekly*	
	No.	*Circulation*	*No.*	*Circulation*
Prince Edward Island	Nil	—	Nil	—
Nova Scotia	„	—	1	1,351
New Brunswick	„	—	2	13,147
Quebec	10	529,189	96	1,183,527
Ontario	1	23,432	2	3,760
Manitoba	Nil	—	1	8,161
Saskatchewan	„	—	1	886
Alberta	„	—	1	3,760
British Columbia	„	—	Nil	—
TOTALS	11	552,621	104	1,214,592

[1] Not given in all cases.

NUMBERS AND CIRCULATIONS[1] OF PUBLICATIONS,[2] OTHER THAN NEWSPAPERS, BY FREQUENCY OF ISSUE, 1946

Statistics based on *Canadian Advertising*

1946 Issue	*General Magazines*		*Business Papers*		*Farm Papers*		*Miscellaneous*[3]	
	No.	*Circulation*	*No.*	*Circulation*	*No.*	*Circulation*	*No.*	*Circulation*
Annually and semi-annually ..	3	90,000	31	102,769	Nil	—	Nil	—
Monthly	55	2,147,897	184	612,412	18	585,655	34	565,787
Bi-monthly	12	103,086	16	57,055	3	2,900	Nil	—
Semi-monthly	2	301,703	9	18,307	6	269,758	8	126,812
Weekly	6	348,565	17	61,481	10	826,686	20	397,468
Bi-weekly	2	25,000	5	9,270	1	81,108	Nil	—
All others	8	85,780	42	113,007	5	29,748	13	50,800

[1] Not given in all cases. [2] Includes French-language publications. [3] Includes religious, political, labour, etc.

NUMBERS AND CIRCULATIONS OF MAGAZINES AND OTHER PUBLICATIONS, BY TYPE, 1946 STATISTICS BASED ON CANADIAN ADVERTISING

Type	1946	
	No.	*Circulation*
Arts and crafts	5	63,755
Agricultural and rural	41	1,791,434
Household and social	12	1,109,406
Educational	39	699,767
Food and clothing	14	43,224
Trades and industry	174	576,850
Insurance and finance	21	70,302
Medical and dental	26	73,856
Brotherhoods and associations ..	19	289,367
Sports and entertainment	27	444,488
Religious	41	834,128
Transportation and travel	20	160,059
Miscellaneous[1]	71	856,418
TOTALS ..	510	7,013,054

[1] Includes political, labour and others.

THE CANADIAN BROADCASTING CORPORATION

THE organisation of a national radio system in Canada was based on the conditioning factors of the Dominion's vast territory, its two official languages, its often widely separated communities, and the varying interests and cultural background of its people. In the early 1920's, there was a tendency to concentrate radio stations in the large urban centres, with the result that much of Canada's rural population was not able to enjoy the new medium of entertainment and information.

Established by Parliament in 1936, to succeed the Canadian Radio Broadcasting Commission formed in 1932, the Canadian Broadcasting Corporation was instructed to build a chain of high-power stations across Canada in order to serve as many Canadians as possible. The

Corporation was designed to operate in the public interest, as provided for under the Canadian Broadcasting Act, 1936. The revenue is derived from an annual licence fee of $2·50 paid by listeners, together with revenue from commercially sponsored programmes.

When the CBC began operating in 1936, network broadcasting was being carried on for six hours daily, and only about 60 per cent of the population was being reached. With instructions from Parliament to proceed as rapidly as possible with a plan for national coverage, the Board of Governors of the newly formed CBC called on its engineering staff for technical surveys and recommendations for improving national radio service. A comprehensive plan was drawn up, and the CBC began at once to expand the publicly owned broadcasting facilities. Among the projects which have been completed are the following: 50,000-watt stations at Montreal, Que., Toronto, Ont., Sackville, N.B., and Watrous, Sask.; an increase in power to 5,000 watts at CBR, Vancouver, B.C.; new 5,000-watt transmitters for CBM, Montreal, and CJBC, Toronto; and the establishment of CBC stations at Quebec city and Chicoutimi, Que., and Halifax, N.S. In addition, CBC engineers have designed special low-power relay transmitters, which operate almost automatically at isolated points along the CBC network in the interior of British Columbia, in northern Ontario and in New Brunswick. Though the work on the plan for national coverage was brought to a virtual standstill during the war years, it has since been resumed with the building of a 50,000-watt station in Alberta. Another is scheduled to be built in Manitoba. The power of CJBC, Toronto, is to be increased to 50,000 watts, and the power of stations at Halifax, N.S., Chicoutimi, Montreal and Quebec city, Que., Ottawa, Ont., and Vancouver, B.C., is also to be increased.

In 1936, one stumbling block in the way of a national radio system for Canada was lack of agreement among the nations of North and South America as to the use of radio wavelengths, or channels. While the network taken over by the CBC in 1936 served about 60 per cent of the population in the daytime, this coverage was reduced to about 49 per cent at night by interference from high-power stations in the United States and Mexico using some of the same channels in use by Canadian stations. As one of its first acts, the CBC asked the Canadian Government to initiate steps which, ultimately, resulted in the Havana Regional Radio Conference held in March, 1937, and the Inter-American Radio Conference of November, 1937, at which the North American Regional Broadcasting Agreement was signed. Wavelengths were allocated to the various countries on a basis providing protection from interference for stations on the same channels, according to the territory they were to serve. The agreement provided Canada with a sufficient number of " clear " channels (on which the signal of a high-power station is protected from interference up to long distances or to the borders of the country in which it is situated) to carry out the plan of national coverage.

When the new 50,000-watt stations CBL and CBF, at Toronto and Montreal, were put into operation during the fiscal year 1937–38, the day-and-night coverage of the Corporation's network was increased to about 80 per cent of the population. Network broadcasting was increased first to 12 hours, and then to 16 hours a day, on both the English-language and French-language networks.

While technical improvements continued, the Corporation was steadily expanding its programme service. During the 1937–38 season, the CBC broadcast a series of radio symphonic concerts from Montreal. These concerts were presented as an addition to the regular schedule of concerts by existing symphonies in other large centres. The Corporation adopted a policy of obtaining the best programmes, both commercial and sustaining, available in the United States and Great Britain, in addition to increasing its own Canadian productions.

In the autumn of 1938, the Corporation undertook what was then its most ambitious project: a series of 11 Shakespearian plays, in which leading Shakespearean actors were featured. Among the guest artists were such well known personalities as Sir Cedric Hardwicke, Margaret Anglin, Charles Warburton, Walter Huston, Eva LeGallienne, Walter Ampden, and Dennis King. The CBC held 500 auditions while selecting the supporting casts, and unearthed much new talent.

The summer of 1939 brought the CBC what was probably the greatest task ever undertaken in broadcasting up to that time—the visit of the King and Queen to Canada. Many months before the Royal Visit, preparations were going on within the CBC engineering division so that adequate facilities and equipment would be available to cover the visit. Complete new broadcasting facilities were designed by CBC engineers, and equipment built to rigid specifications was distributed across Canada well ahead of time. CBC commentators were able, by this means, to keep Canadians completely informed of Their Majesties' progress over a period of six weeks and a distance of 7,000 miles. A total of 91 special broadcasts was devoted to the Royal Visit.

In late August, 1939, as the International situation became acute and events moved with ever-increasing momentum toward war, the whole programme pattern of the CBC was changed almost overnight to meet the public demand for an extended service of news bulletins, analyses and informed comment. A CBC Programme Unit of one commentator and one engineer accompanied the First Canadian Division when it sailed for the United Kingdom in December, 1939, and a series of historic recordings was sent back to Canada by short-wave after their arrival. Later, this Programme Unit was expanded and became the CBC Overseas Unit. It was equipped with armoured, mobile recording vans so that correspondents and engineers could follow the Canadian troops wherever they went, and report their progress to Canadians at home. During the course of the War these vans saw service in England, Africa, Sicily, Italy, France, the Low Countries and Germany, and CBC correspondents were able to provide a service of war reports unequalled by any other network.

In the field of community life, the development of listening groups as a corollary to educational broadcasts was the subject of an experimental project fostered by the CBC and the Canadian Association for Adult Education in 1940. Over 550 listening groups were formed across Canada to follow a series entitled " Enquiry into Co-operation," with the provision of study material and reading lists. This series set the pattern for two later discussion series, " Of Things to Come," in which 20,000 people were members of listening groups, and the present annual series, " Citizens' Forum."

A similar discussion series designed especially for the rural audience was begun in 1940 under the title " National Farm Radio Forum." This series—a joint project of the CBC, the Canadian Federation of Agriculture and the Canadian Association for Adult Education—gives farmers in all parts of Canada an opportunity to exchange views and opinions on common problems.

The 1940–41 season brought other important developments in Canada's national radio system. The CBC National News Service was established, with a central newsroom at Toronto and regional newsrooms at Halifax, Montreal, Winnipeg and Vancouver, to provide a complete service of news bulletins written especially for radio. School broadcasts, prepared in co-operation with Provincial Departments of Education, were begun in the Maritimes, British Columbia and Quebec. National School Broadcasts, prepared and presented by the CBC itself, began the following year. These broadcasts, developed with the advice of the National Advisory Council on School Broadcasting, are designed to strengthen the sense of Canadian citizenship in the younger generation.

Perhaps the most interesting war work for the members of the CBC engineering division who were not overseas with the troops was the assistance given to the Free French Forces in establishing a powerful short-wave transmitter at Brazzaville, in French equatorial Africa. Members of the CBC engineering division spent considerable time abroad on initial plans for the transmitter, and the engineering offices at Montreal were able to render vital assistance in preparing engineering layouts, and mechanical and electrical blueprints.

Their work on the short-wave transmitter for the Free French Forces stood the engineers in good stead when they were called on to design and build a powerful short-wave station for the Canadian Government. The preparations for a Canadian short-wave service had begun as early as 1938, and an Order in Council authorising the establishment of the CBC International Service was passed in 1942. CBC engineers chose Sackville, N.B., as the site, and designed a directional, high-gain antenna system for short-wave broadcasting. By means of remotely controlled switches, the two 50,000-watt transmitters in the short-wave plant can be attached to any one of three antenna systems, and each of these can be reversed. In effect, this means that Canadian short-wave programmes can be aimed in any one of six directions, to cover every important land area. The CBC International Service transmitters are so effective that they provide the strongest and steadiest signal heard in the United Kingdom from the North American continent.

While the International Service is making Canada's name and her people better known abroad, the CBC is striving continually to improve its domestic service. In its ten years of broadcasting, the CBC has made tremendous contributions to the cultural life of Canada. It has done more than almost all other bodies put together to make it possible for musicians of all kinds to devote themselves entirely to their art. The Corporation is the greatest single support of Canadian symphony orchestras, paying the leading orchestras, at Vancouver, Toronto and Montreal, a total of $50,000 annually for broadcast concerts. In the past ten years, the CBC has paid almost $10,000,000 in fees to Canadian musicians, actors and writers.

Administration of the CBC

The Corporation operates under the Canadian Broadcasting Act, 1936, and is headed by a Board of nine Governors, chosen to give representation to the principal geographic divisions of Canada, and a full-time Chairman. The Board determines and supervises policy, but day-to-day operations and administration are the responsibility of the General Manager. The Administrative organisation of the CBC consists of the following Divisions: Executive, Personnel and Administration, Finance, Engineering, Programme, Press and Information, Commercial, Broadcast Regulations, and Station Relations.

Under the Canadian Broadcasting Act, the CBC is responsible for regulations controlling the establishment and operation of networks, the character of any and all programmes broadcast over its own and privately owned stations, and the proportion of time that may be devoted to advertising in broadcast programmes. The CBC neither exercises, nor authorises any private station to exercise on its behalf, censorship of any broadcast programme. The responsibility of seeing that the regulations are observed rests with the individual station management.

Operations of the CBC

Broadcasting Facilities.—Under Sect. 24 of the Act, the CBC is required to review all applications for licences for new stations as well as applications for increases in power and changes in frequency or location. Two considerations are involved: the first is non-interference with the present and proposed facilities of the CBC, and the second is that high-power transmission facilities, on both long- and short-wave bands, are reserved for use by the CBC. Within these limitations, it is the policy of the Board to serve community interests by giving every practical encouragement and assistance to local stations.

The CBC operates three networks: the Trans-Canada and Dominion networks, serving English-language audiences from Atlantic to Pacific, and the French network serving French-language listeners in Quebec. The Trans-Canada network is made up of 24 basic stations: 7 CBC-owned and 17 privately owned. The Dominion network consists of 29 basic stations, of which 28 are privately owned. The French network has 3 basic CBC-owned stations, and 9 privately owned stations. Four of the 11 CBC-owned stations have 50,000 watt transmitters. The CBC leases some 25,000 miles of wire lines each day in order to carry on network operations in Canada, which lie across five of the world's time zones. In order to present programmes as suitable times, and to give expression to varying interests in the five regions, CBC maintains regional offices and production facilities at Halifax, N.S.; Chicoutimi, Quebec city, and Montreal, Que.; Ottawa and Toronto, Ont.; Winnipeg, Man.; and Vancouver, B.C.

BROADCASTING STATIONS OF CBC NETWORKS, AS AT JANUARY 10, 1947

(BASIC STATIONS)

NOTE.—The stations marked with an asterisk (*) are CBC-owned.

Station Location		Frequency	Power
		kc.	watt
Trans-Canada Network—			
CBH*	Halifax	1,240	100
CJCB	Sydney	1,270	1,000
CBA*	Sackville	1,070	50,000
CHSJ	Saint John ..	1,150	1,000
CFNB	Fredericton ..	550	1,000

BROADCASTING STATIONS OF CBC NETWORKS, AS AT JANUARY 10, 1947—*cont.*

(BASIC STATIONS)

NOTE.—The stations marked with an asterisk (*) are CBC-owned.

Station Location		Frequency	Power
		kc.	watt
Trans-Canada Network—*cont.*			
CBM*	Montreal	940	5,000
CBO*	Ottawa	910	1,000
CKWS	Kingston	960	5,000
CBL*	Toronto	740	50,000
CFCH	North Bay	600	100
CJKL	Kirkland Lake	560	5,000
CKGB	Timmins	1,470	1,000
CKSO	Sudbury	790	5,000
CJIC	Sault Ste. Marie	1,490	250
CKPR	Fort William	580	1,000
CKY	Winnipeg	990	15,000
CBK*	Watrous	540	50,000
CJCA	Edmonton	930	1,000
CFAC	Calgary	960	1,000
CJOC	Lethbridge	1,060	1,000
CFJC	Kamloops	910	1,000
CKOV	Kelowna	630	1,000
CJAT	Trail	610	1,000
CBR*	Vancouver	1,130	5,000
Dominion Network—			
CHNS	Halifax	960	1,000
CJFX	Antigonish	580	1,000
CHLS	Yarmouth	1,340	100
CFCY	Charlottetown	630	[1]
CKCW	Moncton	1,220	5,000
CKNB	Campbellton	950	1,000
CKTS	Sherbrooke	1,240	250
CFCF	Montreal	600	500
CKCO	Ottawa	1,310	1,000
CHOV	Pembroke	1,340	250
CFJM	Brockville	1,450	250
CHEX	Peterborough	1,430	1,000
Dominion Network—*cont.*			
CJBC*	Toronto	1,010	5,000
CFPL	London	1,570	5,000
CFCO	Chatham	630	100
CFPA	Port Arthur	1,230	250
CJRL	Kenora	1,220	1,000
CKRC	Winnipeg	630	1,000
CJGX	Yorkton	940	1,000
CKX	Brandon	1,150	1,000
CKRM	Regina	980	1,000
CHAB	Moose Jaw	800	5,000
CFQC	Saskatoon	600	1,000
CKBI	Prince Albert	900	[1]
CFRN	Edmonton	1,260	1,000
CFCN	Calgary	1,010	10,000
CJOR	Vancouver	600	5,000
CJVI	Victoria	900	[2]
CHWK	Chilliwack	1,340	100
French Network—			
CBJ*	Chicoutimi	1,580	1,000
CBV*	Quebec	980	1,000
CBF*	Montreal	690	50,000
CHNC	New Carlisle	610	[1]
CJBR	Rimouski	900	[1]
CHGB	Ste. Anne-de-la-Pocatiere	1,350	[2]
CKCH	Hull	1,240	250
CJEM	Edmundston	1,240	250
CHLT	Sherbrooke	900	1,000
CKVD	Val d'Or	1,230	100
CHAD	Amos	1,340	100
CKRN	Rouyn	1,400	250

[1] 5,000 watts during daytime; 1,000 watts at night.

[2] 1,000 watts during daytime; 250 watts at night.

CBC International Service (*Short-Wave*).—Canada's international short-wave broadcasting facilities (1947) employ ten languages: English, French, Czech, Dutch, German, Danish, Norwegian, Swedish, Spanish and Portuguese, in regular transmissions to Europe, the West Indies, Central and South America. Plans for the year include the inauguration of transmissions to Australia, New Zealand and South Africa, expansion of the services to South America and the Scandinavian countries and the inauguration of transmission to Belgium in French and Flemish.

The CBC International Service transmitters are located on reclaimed marshland near Sackville, N.B. Linked by land-line with the studios and programme headquarters in Montreal, the two 50,000-watt transmitters used by the CBC International Service can operate in any of the international short-wave bands. The frequencies used depend on climatic conditions, the geographical area served, the season of the year and the time of day.

The service was opened officially Feb. 25, 1945. During the first two years of operation more than 20,000 letters were received from listeners in all parts of the world, testifying to the strength with which Canadian short-wave programmes are received and to the interest in Canada which they either arouse or help to satisfy. Listeners in Europe report constantly that CBC International Service programmes are heard more clearly and loudly than any other broadcasts from the Western Hemisphere.

Listeners receive, upon request, free illustrated monthly schedules giving details of programmes, frequencies and transmission times, as well as photographs and general information about Canada. Reception reports from listeners are also verified and inquiries on trade conditions, social, scientific and education matters are given attention.

The service has provided short-wave listeners abroad with comprehensive day-to-day reports and actuality broadcasts from all major international conferences held in North America since the end of the War in 1945. Supplementing the regular programmes in ten languages, special events broadcasts of all kinds are arranged whenever necessary to give CBC listeners in other lands full reports on activities in Canada that are of particular interest to them. Visitors from abroad frequently use the CBC short-wave service to report back to their home countries on their impressions of Canada.

The CBC International Service short-wave transmitters at Sackville, N.B., were completed by the Corporation for the Canadian Government.

Domestic Programme Service and Development.—During the fiscal year ended Mar. 31, 1946, 55,934 programmes representing 17,062:25 hours of broadcasting were presented over the CBC Trans-Canada, Dominion and French networks. Of the total broadcasting hours, 82·2 per cent were devoted to non-commercial and public service programmes, and the remaining 18·8 per cent to commercial presentations. The Trans-Canada network, operating 16 hours a day, released 64·4 per cent of the network broadcasting hours. The Dominion network, operating at present only in the evening hours, released 8·2 per cent of the network hours. French network operations, operating 16 hours a day, accounted for 27·2 per cent of all network hours of broadcasting.

The CBC originated and produced 78·7 per cent of its network broadcasts. Of the remainder, 2·6 per cent came

CLASSIFICATION OF CBC PROGRAMMES, YEAR ENDED MARCH 31, 1946

NOTE.—Dashes in this table indicate that no programmes were reported under these particular sub-items

Class of Programme	Sustaining			Commercial		
	Programmes	Time	Per cent of Total Hours	Programmes	Time	Per cent of Total Hours
	No.	hrs. mins.		No.	hrs. mins.	
Musical						
Opera	131	86:00	0·6	13	44:05	1·5
Symphony	378	366:40	2·6	23	19:00	0·6
Sacred	142	40:00	0·3	14	4:00	0·1
Classical	1,729	650:05	4·7	51	25:30	0·8
Semi-classical	3,415	1,204:20	8·7	89	44:30	1·3
Variety	1,428	590:55	4·3	1,704	739:40	23·1
Light	9,692	2,825:55	20·4	678	251:55	7·8
Dance	4,434	1,595:05	11·5	108	42:30	1·3
Old-time	537	138:20	1·0	70	35:00	1·1
Band	358	165:45	1·2	—	—	—
TOTALS, MUSICAL	22,244	7,663:05	55·3	2,750	1,206:10	37·6
Spoken Word						
Drama	1,412	583:05	4·2	5,662	1,594:40	49·8
Prose and poetry	52	18:50	0·1	—	—	—
Talks—informative	3,187	838:00	6·0	486	172:00	5·4
Educational	1,161	479:55	3·5	—	—	—
News commentary	745	170:20	1·2	—	—	—
News events	66	24:35	0·2	4	4:00	0·1
News résumés	11,921	2,242:30	16·1	—	—	—
Agriculture	2,072	785:30	5·7	—	—	—
Stock quotations	412	103:45	0·7	—	—	—
Sports events	120	63:55	0·5	121	157:45	4·9
Sports résumés	286	63:40	0·5	23	5:45	0·2
Women's	1,326	273:05	2·0	255	63:45	2·0
Children's	340	134:30	1·0	—	—	—
Religious	1,289	413:35	3·0	—	—	—
TOTALS, SPOKEN WORD	24,389	6,195:15	44·7	6,551	1,997:55	62·4
GRAND TOTALS	46,633	13,858:20	100·0	9,301	3,204:05	100·0
Live talent	30,910	8,851:15	63·9	7,951	2,818:35	87·9
Recorded	13,527	4,271:15	30·8	—	—	—
Transcribed	2,196	735:50	5·3	—	—	—
Delayed	—	—	—	1,350	385: 30	12·1

from private stations, 15·3 per cent were exchange programmes from the United States, and 3·4 per cent were exchange programmes from the BBC. Various categories of light music made up the greatest number of broadcast hours, followed in order by news, drama, variety, classical music, talks, agriculture programmes, educational broadcasts, religious periods, and programmes devoted to the interests of women, sport fans, and children. The above table shows the proportion of total time devoted to sustaining as compared with commercial programmes, and analyses those made up of music as compared with the spoken word.

Finances of the CBC

Revenue from the sale of receiving and broadcasting licences increased each year until 1943–44, but has since shown a decrease. It has been recognised that there is a limit to the amount of revenue to be received from licence fees, although an increase over the 1945–46 figure may be shown as post-war radio receivers become more readily available to the public. Commercial revenues showed an increase over the preceding year, but the drop in licence revenue and an increase in overhead expenditure resulted in a deficit.

The balance sheet of the Corporation, as at Mar. 31, 1946, showed an operating deficit of $78,426 for the fiscal year, before providing allowance for depreciation and obsolescence. Since depreciation rates have been generous in the past, no further allowance has been provided for under expenditures for the 1945–46 fiscal year. During the year the fixed assets of the Corporation were increased by approximately $219,000, the major project being the completion of the National Programme Administration Building and Studios at 354 Jarvis Street, Toronto, Ont. Improvements to leased properties amounted to approximately $35,000, the main items being improvements to studios and offices in Halifax, Quebec City, Montreal and Ottawa.

Operating costs in percentage terms for the past three years were:—

Item	1943–44	1944–45	1945–46
	per cent	per cent	per cent
General and administrative	4·10	4·17	5·18
Operations	18·50	20·40	21·10
Programmes	56·18	54·24	56·06
Station network	16·90	17·02	17·66
Depreciation	4·32	4·17	—
Interest on loans ..	—	—	—
	100·00	100·00	100·00

INCOME AND EXPENDITURE OF THE CBC, YEARS ENDED MARCH 31, 1945–46

Item	1945		1946	
	$	Per cent	$	Per cent
Income				
Licence fees	3,783,453	68·81	3,773,285	61·53
Commercial	1,639,160	29·81	1,683,838	27·47
Miscellaneous..	75,785	1·38	68,441	1·11
International short-wave service	—	—	606,700	9·89
TOTALS, NET INCOME ..	5,498,398	100·00	6,132,264	100·00
Expenditures				
Programmes	2,824,188	50·69	2,939,376	47·32
Station network	1,114,153	20·00	971,441	15·65
Engineering	929,819	16·69	1,160,675	18·69
General and administration	227,741	4·09	285,302	4·60
Press and information	138,241	2·48	145,184	2·34
Commercial division	109,344	1·96	130,903	2·10
Depreciation	227,659	4·09	—	—
International short-wave service	—	—	577,809	9·30
TOTALS, EXPENDITURES ..	5,571,145	100·0	6,210,690	100·00
Operating surplus	—	—	—	—
Operating deficits	72,747	—	78,426	—

THE CANADIAN TELEPHONE SERVICE

Telephone Systems

THE 3,151 telephone systems existing in 1945 included the three large provincial systems in Manitoba, Saskatchewan and Alberta, and smaller governmental systems in Ontario, Quebec and New Brunswick, together with the system operated by the Dominion Department of Public Works and National Parks of Canada, Department of Mines and Resources. They also included 24 municipal systems, the largest operated by the cities of Edmonton, Fort William and Port Arthur. Of the 2,368 co-operative telephone companies no fewer than 1,121 were in Saskatchewan alone, 785 in Alberta and 212 in Nova Scotia. The largest among the 527 stock companies operating telephone systems in 1945 were the Bell Telephone Co., and the British Columbia Telephone Co. Over 60 per cent of the total telephone investment in Canada belongs to the Bell Telephone Co., and their telephones in Quebec and Ontario constitute 57 per cent of the total for Canada.

Telephone Equipment

During the years 1935-45 there has been an increase of 639,979 in the number of telephones in use, representing an increase of 38 per cent in telephones per 100 population.

Of the 1,848,794 telephones in Canada in 1945, 1,037,015 or 56 per cent were operated from automatic switchboards. The remainder were operated from manual switchboards. Automatic switchboards have completely displaced manual switchboards in the principal cities of the Prairie Provinces and are displacing them in the other provinces.

The density of telephones in the different provinces is naturally influenced by the urbanisation of the population because the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

Telephone Calls

Systems operating almost 90 per cent of all telephones in Canada made estimates by actual count on days of normal business and, after adjustment for incompleted calls, holidays, Sundays, etc., the average was multiplied by 365. The long-distance calls, in practically all cases, were the actual long-distance calls put through or completed.

MILEAGES OF POLE LINE AND WIRE, AND TELEPHONES IN USE, 1942-45

Year	*Systems*	*Pole-Line Mileage*	*Mileage of Wire*	*Telephones in Use*					
				Business	*Residential*	*Rural*[1]	*Public Pay*	*Total*	*Per 100 Population*
	No.	*miles*	*miles*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
1942	3,192	217,958	6,014,596	463,827	867,307	266,176	30,465	1,627,775	14·0
1943	3,187	218,702	6,057,880	484,429	901,228	275,202	31,303	1,692,162	14·3
1944	3,174	220,161	6,108,070	504,791	928,061	286,521	32,550	1,751,923	14·6
1945	3,151	222,435	6,333,761	531,697	983,074	300,757	33,266	1,848,794	15·3

[1] Includes telephones on rural exchange lines and urban exchange lines that have more than four parties.

TELEPHONES IN USE, BY PROVINCES, 1945

Province or Territory	*On Individual Lines*		*On 2- and 4-Party Lines*		*On Rural Lines*		*Private Branch Exchanges and Extensions*		*Public Pay Stations*	*Total*	*Telephones per 100 Population*
	Business	*Residence*	*Business*	*Residence*	*Business*	*Residence*	*Business*	*Residence*			
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
P.E.I.	991	1,157	172	1,659	228	2,453	764	146	72	7,642	8·3
N.S.	7,761	15,103	762	18,479	940	12,835	9,877	2,535	1,077	69,369	11·2
N.B.	4,966	8,797	981	13,538	1,060	7,585	6,459	1,381	854	45,621	9·7
Que.	52,482	93,967	8,340	122,046	9,193	33,924	80,920	11,572	12,815	425,259	11·9
Ont.	83,927	146,590	11,160	288,593	6,074	120,870	130,457	25,696	12,781	826,148	20·6
Man.	11,386	38,235	66	12,840	1,421	15,347	16,118	2,071	2,303	99,787	13·6
Sask.	14,031	29,492	434	154	10	50,565	7,142	1,270	508	103,606	12·3
Alta.	17,122	40,353	33	474	1,173	18,715	11,815	1,132	1,060	91,877	11·1
B.C.	22,554	9,234	466	92,520	2,110	16,158	30,493	4,040	1,796	179,371	18·9
Yukon	18	Nil	Nil	Nil	33	63	Nil	Nil	Nil	114	2·3
TOTALS ..	215,238	382,928	22,414	550,303	22,242	278,515	294,045	49,843	33,266	1,848,794	15·3

LOCAL AND LONG-DISTANCE CALLS AND AVERAGES PER TELEPHONE AND PER CAPITA, 1942-45

Year	Local Calls	Long Distance Calls	Total Calls	Totals Calls per Capita[1]	Averages per Telephone		
					Local	Long-Distance	Total
	No.	No.	No.	No.	No.	No.	No.
1942 ..	2,954,644,000	44,230,000	2,998,874,000	257	1,815	27·2	1,842
1943 ..	2,929,446,000	50,348,000	2,979,794,000	252	1,731	29·8	1,761
1944 ..	2,955,975,000	56,678,000	3,012,653,000	252	1,687	32·4	1,720
1945 ..	3,145,492,000	64,788,000	3,210,280,000	265	1,701	35·0	1,736

[1] Per capita figures are based on official estimates of population.

RADIO COMMUNICATIONS

Technical Control and Licensing

ALL radio stations within the Dominion of Canada are required to be licensed, whether used for transmission or reception, or both. The issuance of all classes of licences, the assignment of call signs and frequencies, and the inspection and monitoring of radio stations in Canada is carried out by the personnel of the Radio Division. There were 86,961 radio stations of all classes inspected by departmental radio inspectors during 1945-46. Examinations for certificates of proficiency in radio are conducted by the inspection staff of the Radio Division. Certificates of all classes to the number of 13,553 were issued up to Mar. 31, 1946.

The Radio Regulations for Ship Stations issued under the Canada Shipping Act, 1934, lay down the specifications of radio equipment to be carried on certain classes of vessels, and also designate the qualifications of the operators required.

To ensure safety of life at sea, certain passenger steamers and cargo vessels, by international regulations, must carry radio equipment manned by competent operators holding certificates of proficiency in radio. The Department maintains a complete radio inspection service to enforce this regulation. Inspectors, located at major ports throughout the Dominion, are responsible for checking the efficiency of the radio equipment on ships calling at Canadian ports, regardless of their nationality, and for seeing that only competent operators are carried. Under the Canada Shipping Act, 1934, ships of foreign and Canadian registry, while in Canadian ports, are surveyed with a view to the issuance of safety certificates.

PRIVATE RECEIVING LICENCES[1] ISSUED IN CANADA, BY PROVINCES, YEARS ENDED MARCH 31, 1942-46

Province	1942	1943	1944	1945	1946
	No.	No.	No.	No.	No.
Prince Edward Island	8,962	8,516	10,583	10,228	10,346
Nova Scotia	71,776	81,524	79,887	82,694	80,759
New Brunswick	48,728	52,745	52,698	53,240	55,043
Quebec	400,902	436,288	455,053	456,825	479,852
Ontario	604,981	637,116	647,167	627,348	607,968
Manitoba	104,384	108,435	110,249	106,144	107,343
Saskatchewan	122,304	127,529	128,754	129,298	126,002
Alberta	122,489	126,525	128,950	130,209	121,295
British Columbia	138,191	149,481	157,060	162,655	165,281
Yukon and N.W.T.	772	721	499	459	462
CANADA	1,623,489	1,728,880	1,770,900	1,759,100	1,754,351

[1] Includes licences issued free, numbering 8,435 in 1946, 8,375 in 1945, 7,896 in 1944, 7,465 in 1943, 6,998 in 1942, 6,796 in 1941, and 5,862 in 1940.

RADIO STATIONS IN OPERATION, BY CLASS, AS AT MARCH 31, 1942-46

Class of Station	1942	1943	1944	1945	1946
	No.	*No.*	*No.*	*No.*	*No.*
Aeronautical direction-finding (Government)	2	2	1	1	Nil
Aeronautical ground to air	2	2	66	80	88
Aeronautical radio range (Government)	54	55			
Aircraft	138	143	150	161	211
Amateur experimental[1]	Nil	Nil	Nil	Nil	4,048
Coast (Government)	29	29	29	29	28
Commercial receiving	120	125	121	129	91
Commercial receiving (special)	92	96	95	99	100
Direction finding, short-wave (Government)	Nil	Nil	3	3	3
Experimental[1]	52	52	54	59	90
Fan marker (Government)	2	3	5	9	10
Ionosphere	Nil	Nil	Nil	Nil	2
Land	1	1	1	1	1
Limited coast	6	6	6	6	6
Marine direction-finding (Government)	13	13	13	13	13
Monitoring (Government)	Nil	Nil	5	5	5
Municipal police private commercial	55	64	66	73	86
Private commercial	1,184	1,292	1,346	1,420	1,673
Private commercial broadcasting	102	102	115	139	142
Operated by C.B.C.	18	15	28	41	41
Operated by private owners	*84*	*87*	*87*	*98*	*101*
Private receiving[2]	1,623,489	1,728,880	1,770,900	1,759,100	1,754,351
Public commercial	85	85	52	53	58
Radio beacon (Government)	26	28	32	37	37
Radiophone (Government)	12	12	12	15	16
Radio training school	9	10	12	11	13
Ship (commercial)	489	512	628	800	943
Ship (commercial receiving only)	85	64	46	23	38
Ship (Government)	65	64	69	69	69
Weather-reporting (Government)	1	1	5	6	5
TOTALS	1,626,113	1,731,641	1,773,832	1,762,341	1,762,127

[1] All licences for privately owned experimental stations and for all amateur experimental stations were suspended at the outbreak of war in September, 1939. [2] Includes licences issued free, numbering 8,435 in 1946, 8,375 in 1945, 7,896 in 1944, 7,465 in 1943, and 6,998 in 1942.

According to the number of private receiving licences shown in the table below as having been issued in each province in the year ended Mar. 31, 1946, the estimated population per receiving licence was: Prince Edward Island, 9·1; Nova Scotia, 7·6; New Brunswick, 8·7; Quebec, 7·6; Ontario, 6·8; Manitoba, 6·8; Saskatchewan, 6·6; Alberta, 6·6; British Columbia, 6·1; Yukon and Northwest Territories, 51·9 and for Canada as a whole 7·0.

Expenditures and Revenues of Radio Administration

Prior to Apr. 1, 1939, the licence fee for private commercial broadcasting stations was $50. Since that date, however, the fee has been determined by the power of the stations and the density of population within its service radius and varies from $50 per annum in the case of low-power, short-wave, and non-commercial university stations, to $10,000 per annum in the case of 50 kW. commercial stations.

There are two classes of private receiving licences, one for battery-operated receivers (fee $2 per annum), and the other for electrically operated receivers (fee $2·50 per annum). Free licences are issued for crystal receiving sets and to blind persons, schools, hospitals and charitable institutions; also for receiving sets installed in barracks, mess-halls, canteens or recreational rooms for the gratuitous entertainment of members of naval, military or air forces and merchant seamen; and sets operated by persons whose names appear on the diplomatic list of the Department of External Affairs and consuls general of career as listed in the Annual Report of the Department of External Affairs.

Exact figures of revenues received from private receiving licences are not available by provinces. This is partly due to the fact that commissions paid for the issuance of licences vary according to the classification in which the issue falls, that is, post office, radio dealer, house-to-house vendor, etc. In the following Table, therefore, total revenue received from the sale of private receiving licences has been estimated according to the number of licences issued in each province.

Federal Government Radio Stations

Department of Transport, Marine Service.—Four distinct networks of stations provide a complete radio aids-to-navigation service for ships. The networks serve the following areas: Great Lakes; Gulf of St. Lawrence and Atlantic Coast; Hudson Bay, Strait, and Sub-Arctic; and Pacific Coast. The first three networks are interlocking

EXPENDITURES AND REVENUES OF RADIO SERVICES, DEPARTMENT OF TRANSPORT, YEARS ENDED MARCH 31, 1943-46

Item	1943	1944	1945	1946
	$	$	$	$
Expenditures—				
Administration of Radiotelegraph Act and Regulations ..	130,636	142,691	139,397	155,133
Radio Direction-Finding Station, Radiobeacon and Radiotelegraph Stations—operation and maintenance	664,370	662,890	700,035	699,322
Suppression of local electrical interference	131,774	141,586	164,357	166,396
Issue of radio receiving licences	189,835	199,729	188,273	202,150
Airways and Airports, Radio—				
Operation and maintenance	635,352	716,061	800,220	918,211
Construction	123,471	272,796	707,140	495,088
War appropriation	1,078,088	1,727,213	2,171,727	2,137,768
TOTALS, EXPENDITURES ..	2,953,526	3,862,966	4,871,149	4,774,068
Revenues—				
Radio traffic tolls	70,804	92,960	78,619	115,945
Amount deducted from receiving licence fees collected on behalf of the C.B.C. to cover cost of collection (exclusive of commissions)[1]	189,835	199,729	188,273	202,150
Licence fees (miscellaneous)	14,992	15,984	15,555	20,229
Fines and forfeitures	12,545	19,254	23,016	26,691
Examination fees	1,506	1,443	1,407	1,744
Publications	1,670	1,332	894	511
Rental of quarters (employees)	33,767	42,951	56,815	60,309
Miscellaneous	1,340	29,327	31,744	21,752
TOTALS, REVENUES ..	326,459	402,980	396,323	449,331

[1] Sect. 14 of the Canadian Broadcasting Act, 1936, provides that, " The Minister of Finance shall deposit from time to time in the Bank of Canada or in a chartered bank to be designated by him to the credit of the Corporation:—(a) the moneys received from licence fees in respect of private receiving licences and private station broadcasting licences, after deducting from the gross receipts the cost of collection and administration." During the fiscal year 1945-46, $4,005,103 (exclusive of commissions) was collected from the issuance of Radio Receiving and Broadcasting Licences as compared with $4,000,801 during 1944-45; $4,018,063 during 1943-44; and $3,925,028 during 1942-43.

REVENUES FROM PRIVATE RECEIVING LICENCES ISSUED, BY PROVINCES, YEARS ENDED MARCH 31, 1942-46

NOTE.—The figures in this table are approximations only; see text above.

Province	1942	1943	1944	1945	1946
	$	$	$	$	$
Prince Edward Island	18,568	17,586	21,521	21,009	21,258
Nova Scotia	160,236	182,284	178,472	185,603	181,150
New Brunswick	108,607	117,608	117,403	119,493	122,858
Quebec	921,030	1,001,362	1,044,230	1,047,983	1,106,824
Ontario	1,385,777	1,460,397	1,482,491	1,436,984	1,396,387
Manitoba	228,218	237,611	241,191	233,781	234,732
Saskatchewan	249,979	261,336	264,056	267,070	260,777
Alberta	260,221	269,538	274,139	278,014	261,010
British Columbia	315,512	341,543	358,475	372,408	378,744
Yukon and N.W.T.	1,511	1,413	936	856	863
CANADA ..	3,649,659	3,890,678	3,982,914	3,963,201	3,964,603

The Department of Transport maintains communication between Ottawa and the east and west coasts, and Hudson Bay and Strait by means of high-frequency stations.

During the fiscal year 1945-46, Government radiotelegraph stations on the east coast, west coast, the Great Lakes, and Hudson Bay and Strait handled 789,139 messages or 19,749,036 words, compared with 515,708 messages or 17,724,696 words handled during 1944-45.

Department of Transport, Aeronautical Service.—The radio services provided for aviation may be divided into two categories: first, those furnished on behalf of aircraft flying trans-Canada and Newfoundland routes; and

TYPE OF SERVICE PERFORMED AND AREAS SERVED BY MARINE RADIO STATIONS, AS AT MARCH 31, 1946

Service Performed	*Area Served*				*No. of Stations*
	Great Lakes	*Gulf of St. Lawrence and East Coast*	*Hudson Bay, Strait and Sub-Arctic*	*Pacific Coast*	
Coast Stations		Clarke City, Que. Ellis Bay, Anticosti		Vancouver, B.C.	3
Combined Coast and Direction-Finding Stations		Camperdown, N.S.	Cape Hopes Advance, Que. Resolution Island, N.W.T.		3
Combined Coast, Direction-Finding and Radiotelephone Stations		Belle Isle, Nfld. Canso, N.S. Saint John, N.B. Yarmouth, N.S.	Chesterfield, N.W.T. Churchill, Man. Nottingham Island, N.W.T.	Pachena, B.C.	8
Combined Coast and Radiobeacon Stations		Lurcher Lightship Point Amour, Nfld. Sambro Lightship			3
Combined Coast and Radiotelephone Stations	Kingston, Ont. Midland, Ont. Point Edward, Ont. Port Arthur, Ont. Port Burwell, Ont. Sault Ste. Marie, Ont. Toronto, Ont.	Fame Point, Que. Father Point, Que. Grindstone Island Halifax, N.S. Montreal, Que. North Sydney, N.S. Quebec, Que.	Coppermine, N.W.T.	Alert Bay, B.C. Bull Harbour, B.C. Cape Lazo, B.C. Estevan Point, B.C. Prince Rupert, B.C. Victoria, B.C.	21
Combined Coast, Radiobeacon and Radiotelephone Stations				Dead Tree Point, B.C.	1
Combined Coast, Direction-Finding and Radiobeacon Stations		Cape Race, Nfld.			1
Radiobeacon Stations	Angus Island, Ont. Burlington, Ont. Caribou Island, Ont. Cove Island, Ont. Goderich, Ont. Gros Cap Lightship (Lake Superior), Ont. Hope Island, Ont. Long Point, Ont. Main Duck Island, Ont. Michipicoten Island, Ont. Port Colborne, Ont. Port Weller, Ont. South East Shoal, Ont. Slate Island, Ont.	Belle Isle, N.E., Nfld. Cape Bauld, Nfld. Cape Ray, Nfld. Cape Whittle, Que. East Point, P.E.I. Flat Point, N.S. Flower Island, Nfld. Heath Point, Anticosti Natashquan Point, Que. Partridge Island, N.B. Perroquet Island, Que. Point des Monts, Que. Red Islet, Que. Sable Island, N.S. Seal Island, N.S. Western Head, N.S. West Point, Anticosti		Cape St. James, B.C. Langara Island, B.C. Point Atkinson, B.C. Quatsino (Kain's Island), B.C. Race Rocks, B.C. Triple Island, B.C.	37
Combined Radiobeacon and Direction-Finding Stations		St. Paul Island, N.S.			1
Radiotelephone	Welland Canal, Guard Gate Lock No. 7.	Bird Rock, Que. Gannet Rock, N.B. Head Harbour, N.B. Little Wood Island, N.B. Southwest Head, N.B. Southwest Wolf Island, N.B.		Banfield, B.C. Cape Beale, B.C. Carmanah, B.C. Egg Island, B.C. Ivory Island, B.C. Lennard Island, B.C. Merry Island, B.C. Pine Island, B.C. Tofino, B.C.	16
TOTALS	22	42	6	24	94

secondly those intended for aircraft flying transatlantic routes. This phase of radio in Canada is being rapidly developed. Aviation radio range stations now extend from coast to coast providing aid to air navigation for the Government-owned Trans-Canada Air Lines as well as for any other aircraft flying such routes.

During the fiscal year 1945-46 departmental airway radio stations handled 1,674,889 messages or 40,669,632 words, compared with 1,788,069 messages or 29,645,259 words during 1944-45.

Department of Mines and Resources.—This Department operates 59 stations—1 private commercial station and

TYPE OF SERVICE PERFORMED AND ROUTES SERVED BY AERONAUTICAL RADIO STATIONS, AS AT MARCH 31, 1946

Service Performed	*Routes Served*			*No. of Stations*
	Trans-Canada and Newfoundland		*Trans-Canada and Transatlantic*	
Radio Range Stations	Armstrong, Ont. Blissville, N.B. Broadview, Sask. Calgary, Alta. Charlottetown, P.E.I. Churchill, Man. Clear Creek, Ont. Cowley, Alta. Dafoe, Sask. Dartmouth, N.S. Earlton Junction, Ont. Greenwood, N.S. Kapuskasing, Ont. Kenora, Ont. Killaloe, Ont. Kimberley, B.C. Lethbridge, Alta. London, Ont. Medicine Hat, Alta. Mégantic, Que.	Muskoka, Ont. Nakina, Ont. Neepawa, Man. North Bay, Ont. Ottawa, Ont. Pagwa, Ont. Penhold, Alta. Pennfield, Ridge, N.B. Regina, Sask. Rivers, Man. Saskatoon, Sask. Stirling, Ont. Swift Current, Sask. The Pas, Man. Torbay, Nfld. Toronto, Ont. Vermilion, Alta. Windsor, Ont. Yarmouth, N.S. Yorkton, Sask.		40
Combined Radio Range Radio telephone and Radiotelegraph Stations	Abbotsford, B.C. Aishihik, Y.T. Ashcroft, B.C. Beatton River, B.C. Buchans, Nfld. Carmi, B.C. Comox, B.C. Copper Lake, N.S. Cranbrook, B.C. Crescent Valley, B.C. Dog Creek, B.C. Edmonton, Alta. Fort Nelson, B.C. Fort St. John, B.C. Fort Simpson, N.W.T. Fort William, Ont. Gander, Nfld. Goose, Lab. Grande Prairie, Alta. Massett, B.C. Moncton, N.B. Mont Joli, Que. Montreal, Que. Norman Wells, N.W.T.	North Battleford, Sask. Patricia Bay, B.C. Penticton, B.C. Porquis Junction, Ont. Port Hardy, B.C. Prince George, B.C. Princeton, B.C. Quebec, Que. Quesnel, B.C. St. Andrews, Nfld. Seven Islands, Que. Sioux Lookout, Ont. Smithers, B.C. Smith River, B.C. Snag, Y.T. Sydney, N.S. Teslin, Y.T. Tofino, B.C. Vancouver, B.C. Watson Lake, Y.T. Whitecourt, Alta. Whitehorse, Y.T. Winnipeg, Man.		47
Combined Radiotelephone and Radiotelegraph Stations			Shediac, N.B.	1
Fan Marker Stations	Barrington, Que. Cote St. Luc, Que. Greata, B.C. Hudson Heights, Que. Laberge, Y.T.	Maple Ridge, B.C. Moyie Lake, B.C. Pine Island, B.C. St. Mathias, Que. Woodbridge, Ont.		10
Weather Reporting Stations	Dore Lake, Que. Fort McKenzie, Que. Nitchequon, Que.	Port Harrison, Que. Sandgirt Lake, Lab.		5
TOTALS, STATIONS SERVING SPECIFIED ROUTES;	102		1	103

1 experimental station at the Dominion Observatory for the transmission of time signals, 29 private commercial stations in the National Parks of Canada, 2 receiving stations, 9 fixed and 17 portable private commercial stations.

Department of National Defence.—Militia Services (Royal Canadian Corps of Signals) operates, in addition to stations established for military purposes, 11 permanent stations and 2 summer stations situated along the Mackenzie River and in Yukon Territory on behalf of the Department of Mines and Resources, Bureau of Northwest Territories and Yukon Affairs.

Department of Public Works.—The Department of Public Works operates a total of 23 stations—12 to provide emergency communication between the mainland and certain islands, 9 to provide emergency links in existing landline circuits, and 2 for Departmental communication.

Department of National Revenue.—Two private commercial stations are operated by the Department of National Revenue.

Provincial Government Radio Stations

Provincial Governments operate radio stations as follows: Nova Scotia, 2; New Brunswick, 4; Quebec, 18; Ontario, 236 (including 12 aircraft stations); Manitoba, 34; Saskatchewan, 63; Alberta, 135; and British Columbia, 267, in addition to which the British Columbia Provincial Police Department operates 37 stations to provide communication between police headquarters and the various units of the force. The Police Departments of 86 municipalities throughout the Dominion also operate radio stations.

Privately Owned Commercial Stations

There were 6 limited coast stations, 58 public commerical stations, and 1,673 private commercial stations in operation in the Dominion at Mar. 31, 1946. A public commercial station situated at Drummonville, Que., provides transoceanic radiotelegraph and radiotelephone services to the United Kingdom, Australia, Bermuda and Jamaica, and a radiotelephone service to Newfoundland. These stations are owned and operated by private individuals or companies.

The limited coast stations are, as a rule, privately owned and provide a ship-to-shore communication service with ships owned or operated by the licensees only. One such station, is however, owned and operated by the Canadian Marconi Company. It is situated at Drummondville, Que., and provides a long-range radiotelephone service to ships at sea. The facilities of this station are open to the general public. The services performed by commercial stations, both public and private, are many and varied. These stations are located in areas not served by telephone, telegraph, or other means of telecommunication. The majority perform point-to-point radiotelegraph or radiotelephone service. These stations provide an invaluable means of contact with mining camps, lumber mills, exploration and survey parties, trading posts, and many points that would otherwise be out of touch with current affairs.

Private commercial stations may be used only for the handling of messages relative to the private business of the licensee.

WATER POWER AND CENTRAL ELECTRIC STATIONS IN CANADA

By G. S. WRONG

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WATER power is the energy that can be derived from the flow of water from elevated surfaces to the sea. Its magnitude depends on the precipitation, the elevation of the land and lakes upon which the rain and snow is precipitated, the concentration of descent to sea level and several other factors. Unlike the use of coal and other fuels for power purposes, the use of water power does not deplete the resources of the country. As long as the sun continues to shine and the rain to fall, the supply of water power remains practically undiminished. It fluctuates from season to season and from year to year, but the power which can be developed at any site and which may be relied upon, can be estimated fairly closely from records of stream flow.

Canada is fortunate in having a fair precipitation well distributed throughout the year, particularly in the more densely populated sections.

The following table shows the precipitation in a few selected stations.

PRECIPITATION IN INCHES

(1885-1926 records)

Station	MONTHLY		TOTAL FOR YEAR		
	High	*Low*	*Rain*	*Snow*	*Total*
Yarmouth, N.S.	4·78	2·93	39·85	75·3	47·38
Fredericton, N.B.	4·03	2·84	33·00	97·8	42·78
Quebec, Que.	4·12	2·40	29·63	116·2	41·25
Montreal, Que.	3·82	2·58	29·36	118·0	41·16
Toronto, Ont.	3·04	2·40	28·86	66·0	33·46
Port Arthur, Ont.	3·55	0·68	18·88	38·6	22·74
Winnipeg, Man.	3·18	0·79	15·03	49·9	20·02
Qu'Appolo, Sask.	3·62	0·75	13·52	58·1	19·33
Edmonton, Alta.	3·37	0·69	13·08	45·6	17·64
Vancouver, B.C.	9·52	1·23	55·64	30·1	58·65
Port Simpson, B.C.	12·21	4·26	88·17	40·2	92·19
Victoria, B.C.	5·58	0·39	28·22	14·8	29·70

These data do not give a complete picture but there are no arid sections in Canada and only on the Pacific Coast are there sections where the precipitation would be called heavy.

The natural storage basins are both large and plentiful. The great lakes system is by far the largest fresh water area in the world. Lake Superior, the largest of these, has an area of 31,810 square miles and an elevation of 602 feet above sea level, and the six lakes forming this chain have a combined area of 95,160 square miles. The difference in levels between Lakes Superior and Huron is 21 feet, between lakes Erie and Ontario 326 feet and between Lake Ontario and the St. Lawrence River at Montreal 225 feet. The total fresh water area of all lakes and rivers in Canada is estimated at 137,493 square miles and most of it is well above sea level.

The following table shows the available and developed water power in Canada on January 1, 1947.

AVAILABLE AND DEVELOPED WATER POWER IN CANADA

Province	Available 24-hour power at 80% efficiency		Turbine Installation h.p.
	At Ordinary Min. Flow h.p.	At Ordinary Six Months Flow h.p.	
1	2	3	4
British Columbia ..	7,023,000	10,998,000	864,024
Alberta	507,800	1,258,000	93,060
Saskatchewan	542,000	1,082,000	90,835
Manitoba	3,309,000	5,344,500	446,825
Ontario	5,407,200	7,261,400	2,679,740
Quebec	8,459,000	13,064,000	5,848,572
New Brunswick ..	68,600	169,100	133,347
Nova Scotia	20,800	128,300	133,384
Prince Edward Island ..	3,000	5,300	2,617
Yukon and N.W.T. ..	382,500	813,500	19,719
CANADA	25,722,900	40,124,100	10,312,123

The data in columns 2 and 3 of the above table represent continuous rate of power based upon rapids, falls and power sites, of which the stream flow and the actual drop or the head feasible of concentration have been measured or carefully estimated. Consequently it excludes many power sites in unexplored territory, particularly in the northern districts. Also it excludes power sites which might be developed on rivers of small gradient, by construction of dams. The turbine capacities shown are the manufacturers' ratings of the water wheels and turbines, except where experience of the operators has warranted a change because of operating conditions. In most cases it has been found feasible and economical to instal more turbine capacity than the estimated continuous power of the site; for all of Canada the installations are approximately 30 per cent greater than the computed capacity at ordinary six months flow. On this basis the recorded water power resources of Canada would warrant an installation of approximately 52,000,000 horse power, or five times the January 1947 installation.

This apparent over-installation is quite logical and economical. Under normal conditions power requirements are heavy for 8 to 10 hours each day and fall to small proportions during the night. Consequently it is common practice to instal equipment at power sites, where the flow of the water can be controlled, with a capacity considerably in excess of that which could be operated continuously with the water available. Thus a power site of 100 horse power capacity could produce 100 h.p. hours of work per day and could operate a turbine of 150 h.p. for 12 hours if the requirements are reduced to 50 h.p. or less for the remaining 12 hours.

Canada is surpassed in developed water power only by the United States, the capacities of water wheels and turbines in the two countries in 1946 being 10,312,123, and 21,311,000 h.p. respectively. Because of the much smaller population in Canada, the water power development per capita is approximately five times the United States average.

An important feature of Canada's water power is that large capacities of both potential and developed are located in the provinces of Quebec and Ontario within easy transmission distance of the industrial centres. In these two provinces is located over 60 per cent of Canada's total population and over 60 per cent of the manufacturing industries measured in both gross and net value of production. Also in these two provinces no coal is mined which makes the location of this water power still more important. Below is a table showing the developed water power, in each province, by five year periods.

During the war years new equipment increased the installed capacity by over 2,000,000 h.p. Also existing plants in the Great Lakes—St. Lawrence River system had their kilowatt hour capacities increased by increased water for power purposes. Dams north of Lake Superior were constructed which diverted water from the James Bay

WATER POWER DEVELOPED IN CANADA

Horse Power Rating of Installed Turbines

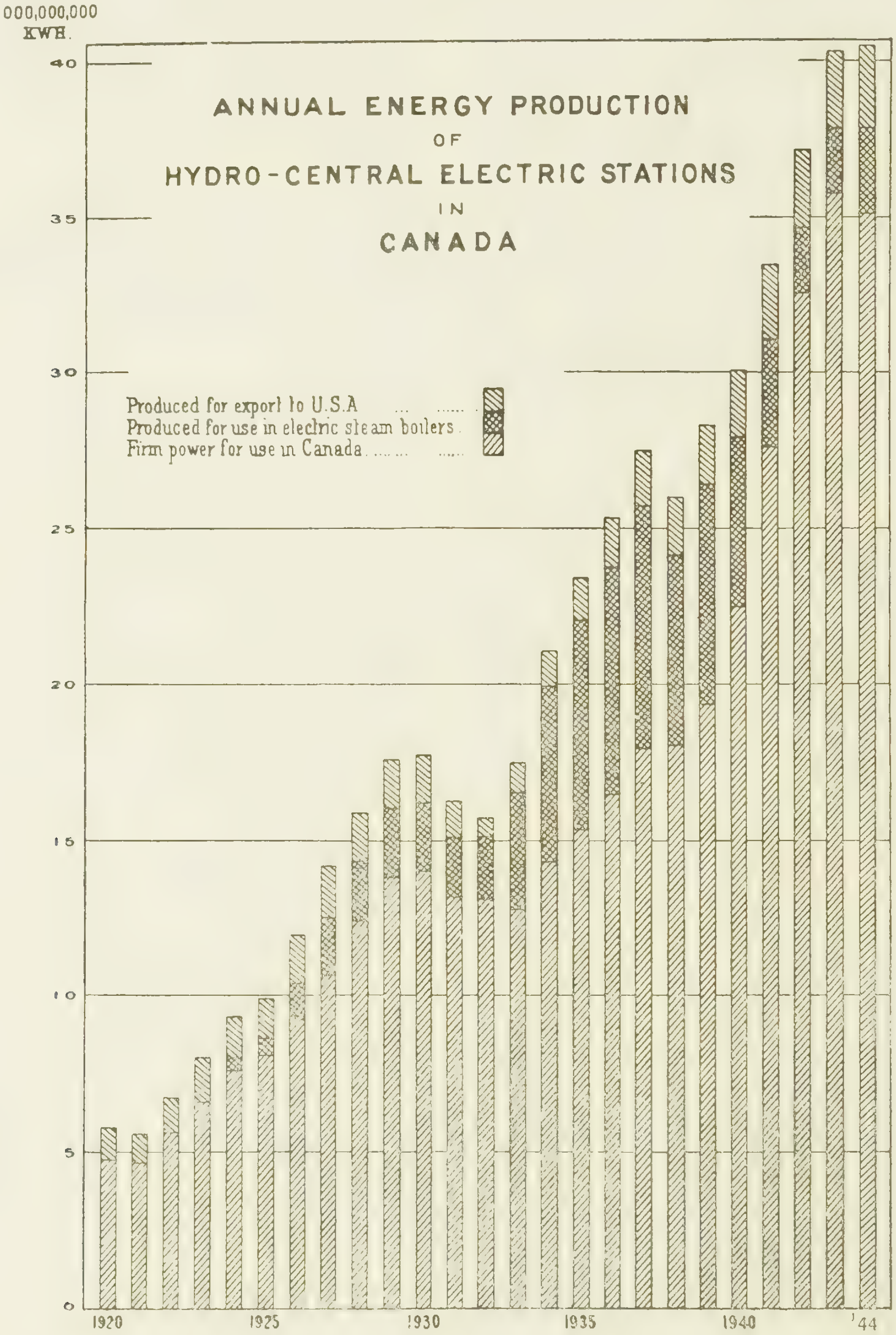
Year	P.E.I.	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	B.C.	Total (including Yukon and N.W.T.)
1900 ..	1,521	19,810	4,601	82,864	53,876	1,000	—	280	9,366	175,325
1905 ..	1,063	26,563	8,594	183,799	202,806	1,000	—	335	29,334	454,209
1910 ..	1,760	31,476	11,197	334,763	490,821	36,800	30	655	64,474	977,171
1915 ..	1,942	33,596	15,405	803,766	871,309	78,850	30	33,110	254,265	2,105,492
1920 ..	2,233	37,623	21,976	955,000	1,057,422	85,325	35	33,122	309,534	2,515,550
1925 ..	2,274	65,637	42,471	1,748,975	1,002,562	183,925	35	34,532	443,852	4,536,262
1930 ..	2,439	114,224	153,661	2,716,150	2,088,055	311,925	42,035	70,532	630,792	6,125,012
1935 ..	2,439	116,367	133,681	3,853,320	2,580,155	392,825	42,035	71,597	718,497	7,909,115
1940 ..	2,617	139,217	133,347	4,320,943	2,597,595	420,925	90,835	71,997	788,763	8,584,456
1945 ..	2,617	133,384	133,347	5,848,572	2,675,200	422,825	90,835	94,997	864,024	10,283,610
1946 ..	2,617	133,384	133,347	5,848,572	2,679,740	446,825	90,935	93,060	864,024	10,312,123

watershed, where it was not being utilised, into Lake Nipigon and Lake Superior. This diversion was equal to approximately 5,000 cubic feet per second. It raised the level of the Great Lakes about 2¼ inches and benefitted all Canadian power plants down to Montreal. Water which by treaty with the United States is diverted for power purposes at Niagara Falls was increased from 56,000 c.f.s. to 86,500 c.f.s. This was feasible without destroying the scenic value of these famous falls because of the above mentioned diversion of additional water into the Great Lakes and by the construction of submerged weirs in Niagara River above the falls. Canada's share of this water is larger than the United States, but large blocks of power produced by this water is exported from the Canadian plants to the United States.

During 1947 the power plant capacity was increased by only 178,800 h.p., but developments with over 1,000,000 h.p. capacity are under construction and another 1,000,000 h.p. is under preliminary investigation to meet the unprecedented demand for power.

Central Electric Stations

Over 90 per cent of the developed water power is in central electric stations which produce and distribute electric power. The remainder is in pulp and paper mills and other industries. The central electric station industry also includes a number of plants using fuel as a source of power, but these produce less than two per cent of the total electricity produced by the industry. Consequently the story of central electric stations may be considered as the story of water power in Canada.



Historical and General Statistics

The growth of central electric stations has been almost continuous since 1919 when statistics of kilowatt hours generated were first made available. The depression that occurred in the early 1930's resulted in a decreased output of power for two years, but the output more than recovered in the following two years and, with the exception of a decrease in 1937, showed a continuous growth up to 1944, the increases during 1940-1944 being unusually large.

Such large blocks of power were used by war industries, particularly the aluminium industry, that a surplus of power was forecast for post war years. The surpluses, however, were small and lasted less than a year. The decrease in total production of electric power in 1945 was only 0·9 per cent of the 1944 production and new records were established in 1946 and in 1947. Because of light rainfall in the autumn of 1947 and continued growth of demand, there were power shortages in several parts of Canada during the spring of 1948. Rains and thaws in March 1948, however, relieved the situation.

The following table shows the principal statistics of the industry by five year periods.

CENTRAL ELECTRIC STATIONS

Principal Statistics

Year	*Capital Invested*	*Revenue from Sale of Electric Energy*	*Main Plant Capacity*	*Kilowatt Hours Generated*	*Customers*	*Employees*	*Salaries and Wages*
	$	$	*h.p.*	000	*No.*	*No.*	$
1919 ..	416,512,010	57,853,392	1,907,135	5,497,204		9,656	11,487,132
1924 ..	628,565,093	74,616,865	2,849,450	9,315,277	1,200,950	12,956	17,946,584
1929 ..	1,055,731,532	122,883,446	4,925,555	17,962,515	1,555,883	16,164	24,831,821
1934 ..	1,430,852,166	124,463,613	6,854,161	21,197,124	1,660,079	14,974	21,829,491
1939 ..	1,564,603,211	151,880,969	7,607,122	28,338,030	1,941,663	18,848	28,223,376
1944 ..	*1,778,224,640	215,246,391	9,715,791	40,598,779	2,238,023	19,770	36,945,296
1945 ..	†	215,105,473	9,666,947	40,130,054	2,333,230	21,283	39,521,365

* 1943 Capital. † Not collected.

The relatively low average revenue (0·53 cents per kilowatt hour in 1945) for all power produced is affected by several factors. Several large stations, particularly in the province of Quebec, are related to pulp and paper plants, aluminium and metallurgical industries, and sell power to such plants at low rates. Also close to 10 per cent of the output was sold on a secondary power basis, that is, on an off-peak basis or as and when the producer was able to deliver it instead on a customer demand basis, at rates around one mill per kilowatt hour. The rates for domestic use, however, were low also. The average revenue for all domestic customers was only 1·66 cents, and in Manitoba and Ontario the averages were 1·02 and 1·21 cents respectively. This is the revenue to the producer and does not include a federal tax of 8 per cent on domestic bills nor taxes imposed in some of the provinces and municipalities on domestic bills paid by the consumer. (The 8 per cent tax was abolished in November 1947). This average revenue compares with 3·41 cents per kilowatt hour in the United States in 1945 (farm services included). The average revenue per kW. hr. for domestic (residential uses) has been declining steadily since 1932, the first year for which data are available, when it was 2·22 cents, and the average annual consumption has been increasing. In 1932 the average consumption was 1,200 kW. hr., and in 1945 it was 1,693 kW. hr.; in the provinces with low rates it was considerably higher, amounting to 4,399 kW. hr. in Manitoba in 1945.

The importance of the central electric industry to Canada's manufacturing and mining industries has grown steadily and in 1944 over 85 per cent of the motor capacity of power equipment in manufacturing and in mining industries was operated by power purchased from central electric stations. The reliable and plentiful supply of cheap hydro-electric power has also caused an evolution in the power equipment used in Canadian industries from steam engines to electric motors; the ratio of electric motors to total power capacity has increased from 61·3 per cent in 1923 to 80·7 per cent in 1944 in manufacturing industries, and from 57·3 to 79·4 per cent in the mining industries.

The number of employees in manufacturing industries in 1923 was 506,203 and in 1944 it had increased to 1,222,882 persons and the power equipment increased from 2,146,903 to 6,468,439. Thus for each person employed, including both wage earners and salaried employees, there was 4·2 h.p. of power equipment in 1923 and 5·3 h.p. in 1944. This increasing use of power equipment per worker, and the greater part of the increase in Canada in electric motors operated by hydro-electric power, is a principal factor in the high per capita wealth in this country.

The following tables show this evolution.

Government Control of Power in Wartime

Less than a year after Canada declared war, shortages of electricity in Ontario and Quebec loomed as probabilities. In August 1940, the Government appointed a Power Controller. The first major conservation move was an Order-in-Council passed on September 20 making daylight saving applicable all year round in these provinces where the clocks had been advanced during the summer, and in January, 1942, daylight saving was extended throughout the whole of Canada on a year round basis.

The use of electricity for space heating and for producing steam was banned in 1940, thus making secondary power available for primary loads. Storage basins were improved, new power plants were rushed to completion, increased quantities of water were diverted at Niagara Falls for power, restrictions were placed on non-war plants using electricity, and the extension of electric service to rural customers was halted. Thus the requirements of war industries were fully met. The enlarging aluminium programme in the province of Quebec caused some concern, but dredging the intake and enlarging the tail race of the Beauharnois plant (on the St. Lawrence river), new transformers, new storage facilities and completion of the large power plant at Shipshaw (for the manufacture of aluminium), took care of the situation. In 1942-43 electricity for advertising signs, show windows and certain outdoor lighting and for other non-essential uses was prohibited in shortage areas. Highway lighting was ruled out and street lighting was reduced by 20 per cent. Ontario and Quebec power plants inter-connections were extended and, despite very unfavourable weather conditions during the winter of 1942-43, the power requirements of war industries were met. By October, 1944, the improvement in the power situation made it possible to discontinue the restrictions

ELECTRIC POWER IN CANADIAN INDUSTRIES

	Capacity (Horse Power)		*Increase*	
	1923	1943	*h.p.*	*p.c.*
MANUFACTURING INDUSTRIES				
Water Wheels	587,191	749,593	162,402	28
Steam Engines	554,191	988,280	434,089	78
Internal Combustion Engines	46,829	257,873	211,044	451
TOTAL ..	1,188,211	1,995,746	807,535	68
Electric Motors on Purchased Power	958,692	4,420,105	3,461,413	356
TOTAL POWER ..	2,146,903	6,415,851	4,268,948	199
Electric Motors on Power Generated in the Industries ..	357,136	760,630	403,494	113
TOTAL ELECTRIC MOTORS ..	1,315,828	5,180,735	3,864,907	294
MINING INDUSTRIES				
Water Wheels	27,528	40,450	12,922	47
Steam Engines	148,039	146,506	—1,533	—1
Internal Combustion Engines	6,914	106,392	99,478	1,439
TOTAL ..	182,481	293,348	110,867	61
Electric Motors on Purchased Power	118,835	695,109	576,274	485
TOTAL POWER ..	301,316	988,457	687,141	228
Electric Motors on Power Generated in the Industries ..	53,860	105,436	51,576	96
TOTAL ELECTRIC MOTORS ..	172,695	800,545	627,850	364
MANUFACTURING AND MINING INDUSTRIES				
Water Wheels	614,719	790,043	175,324	29
Steam Engines	702,230	1,134,786	432,556	62
Internal Combustion Engines	53,743	364,265	310,522	578
TOTAL ..	1,370,692	2,289,094	918,402	67
Electric Motors on Purchased Power	1,077,527	5,115,214	4,037,687	375
TOTAL POWER ..	2,448,219	7,404,308	4,956,089	202
Electric Motors on Power Generated in the Industries ..	410,996	866,066	455,070	111
TOTAL ELECTRIC MOTORS ..	1,488,523	5,981,280	4,492,757	302

POWER EQUIPMENT OF ALL MANUFACTURING INDUSTRIES* IN CANADA

SUMMARY

Year	Total Power Employed	Electric Motors Operated			Electric Power Per Cent of Total
		By Central Electric Stn. Power	By Power generated in the Industries	Total Motor Capacity	
	h.p.	h.p.	h.p.	h.p.	p.c.
1923	2,146,903	958,692	357,136	1,315,828	61·3
1924	2,538,535	1,256,183	398,001	1,654,184	65·2
1925	2,888,164	1,547,754	434,678	1,982,432	68·6
1926	3,134,248	1,770,334	392,322	2,162,656	69·0
1927	3,287,582	1,924,687	386,555	2,311,242	70·3
1928	3,592,184	2,139,129	457,565	2,596,694	72·3
1929	3,867,979	2,393,684	496,036	2,889,720	74·7
1930	4,051,744	2,518,853	478,548	2,997,401	74·0
1931	4,114,677	2,587,411	539,800	3,127,211	76·0
1932	4,157,420	2,694,164	516,157	3,210,321	77·2
1933	4,147,831	2,671,440	502,706	3,174,147	76·5
1934	4,244,696	2,779,913	550,500	3,330,413	78·5
1935	4,346,775	2,874,693	512,396	3,387,089	77·9
1936	4,461,867	2,977,714	528,501	3,506,215	78·6
1937	4,712,279	3,129,790	602,955	3,732,745	79·2
1938	4,969,723	3,303,804	659,741	3,963,545	79·8
1939	5,056,357	3,375,169	694,450	4,069,619	80·5
1940	5,290,935	3,563,048	724,769	4,287,817	81·1
1941	5,850,076	4,028,942	740,112	4,769,054	81·6
1942	†5,969,895	†4,076,277	800,917	†4,877,194	81·7
1943	6,415,851	4,420,105	760,630	5,180,735	80·7

* Excluding central electric stations and including idle and reserve equipment.
† Revised.

POWER EMPLOYED IN THE MINING INDUSTRY* IN CANADA

Year	Total Power Employed	Electric Motors		Total Motor Capacity	Electric Power P.C. of Total
		Operated by Central Electric Station Power	Operated by Power Generated in the Industry		
	h.p.	h.p.	h.p.	h.p.	pc.
1923	301,316	118,835	53,860	172,695	57·3
1924	314,173	125,725	71,376	197,101	62·7
1925	323,882	147,191	64,126	211,317	65·2
1926	336,880	167,241	64,277	231,518	68·7
1927	380,460	202,702	62,067	264,769	69·6
1928	419,464	223,666	68,121	291,787	69·6
1929	450,261	238,974	75,069	314,043	69·7
1930	509,007	297,826	88,585	386,411	75·9
1931	520,638	313,567	79,259	392,826	75·5
1932	482,344	287,130	76,626	363,756	75·4
1933	533,779	322,361	47,407	369,768	69·3
1934	621,071	400,035	66,647	466,682	75·1
1935	688,470	446,247	74,687	520,934	75·7
1936	724,639	474,000	79,140	553,140	76·3
1937	850,489	577,703	100,526	678,229	79·7
1938	874,943	582,510	89,368	671,878	76·8
1939	1,015,200	712,311	101,740	814,051	80·2
1940	1,061,840	746,777	101,606	848,383	79·9
1941	1,113,042	749,126	106,501	855,627	76·9
1942	1,008,777	672,097	118,748	790,845	78·4
1943	988,457	695,109	105,436	800,545	81·0

* Excluding non-ferrous smelting, salt, cement clay products and lime, included with " Manufacturing."

on the use of electric power for non-essential purposes. At no time, however, were war industries hampered by a shortage of power.

Types of Ownership of Central Electric Stations

The power rights in the rivers of Canada belong to the provinces and, consequently, the Federal Government does not generate or distribute hydro-electric power except in national parks; the hydro power in the Yukon and North-west Territories is under Federal jurisdiction, but no power is developed there by the Federal Government—the few developments to date (1946) being under private ownership. (An Act was passed in 1948 giving the Federal Government authority to develop water power in the N.W. territory and a plant of 8,000 h.p. is now under construction (1948)).

In the several provinces the development and distribution of hydro-electric power is divided between public ownership and private or commercial ownership. The public ownership includes provincial and municipal ownership. The Ontario Hydro-Electric Power Commission was the first of the provincial commissions. It was formed in 1906 as a result of agitation in 1903 for cheap hydro power. Its first function was that of trustee for a group of municipalities in southern Ontario, generating and distributing electric energy, but it has expanded and now operates generating stations, transmission lines, for the municipalities, for itself and for the Ontario Government. Electricity is sold to the municipalities at cost, which is adjusted each year as conditions change. The municipalities own the distribution plant within their respective limits and also are paying for their share of the generating and transmission equipment. A large number of the municipalities have liquidated their debt in connection with their distribution system and adjusted rates to cover only operating costs and reserve charges.

The section of Ontario west from Toronto to Lake Huron and south to the Niagara River and Lake Erie served by the Niagara Falls power plants has been 25 cycle territory since the construction of the power systems early in this century. In the remainder of Canada, with few exceptions, 60 cycle power is produced and used.

In February 1948 announcement was made that the Ontario Hydro-Electric Power Commission had decided to change this part of its system to 60 cycle. The changeover programme will take several years and will cost around $191,000,000, which will be partially offset by savings in cost of equipment during and after the changeover. The Commission will absorb all the cost of conversion for domestic and rural customers and a portion of the cost for urban industrial customers, and expects there will be no increase in the cost of power. The Commission's report for 1946 shows the urban population of the affected district as 1,585,000, the number of domestic customers as 472,000 and all customers as 549,000. This district is one of the most highly industrialised in Canada and the change to the frequency used in practically all the rest of Canada and in the United States will be a great benefit to the residents and also the manufacturers of electrical equipment and appliances.

In Quebec the Quebec Streams Commission was formed in 1910. It controls the flow of water on the principal rivers, charging the power companies who use the power. It has built several dams, creating storage basins which it controls. In 1944 the Quebec Hydro-Electric Commission was formed to generate and distribute hydro-electric power. This Commission expropriated the generating and distribution plant of the Montreal Light Heat and Power Company, acquired the stock of the Beauharnois Power Company and took over the operation of the generating plant of its predecessor, the Provincial Electricity Board. Commissions in Nova Scotia, New Brunswick, Manitoba and Saskatchewan were established in 1919, 1920, 1931 and 1929 respectively, along somewhat the same lines as in Ontario. Those commissions have been generating and distributing electric power, both

POWER EQUIPMENT — IN REGULAR USE AND INCLUDING IDLE AND RESERVE EQUIPMENT, 1943

MANUFACTURING INDUSTRIES

Industry	Total Power Employed		Electric Motors Operated By						Electric Power		Consumption of Electricity			
	In Regular Use	Incl. Idle & Reserve Equipment	Central Station Power		Power Generated in the Industries		Total		Per Cent of Total		Purchased from Central Electric Stations		Generated by the Industries	Total
			In Regular Use	Incl. Idle & Reserve	In Regular Use	Incl. Idle & Reserve	In Regular Use	Incl. Idle & Reserve	In Regular Use	Incl. Idle & Reserve	For Power and Lighting	For Other Purposes		
	A h.p.	B h.p.	C h.p.	D h.p.	E h.p.	F h.p.	G h.p.	H h.p.	I p.c.	J p.c.	K Thousands of Kilowatt Hours)	L	M	N
1. Vegetable Products	391,530	414,953	282,285	296,936	30,494	35,385	312,779	332,321	79·9	80·1	467,276	293	37,718	505,287
2. Animal Products	168,580	179,322	132,688	139,013	3,442	3,536	136,130	142,549	80·8	79·4	223,797	1,015	5,271	230,083
3. Textiles and Textile Products ..	247,590	266,834	198,237	209,982	31,087	34,520	229,324	244,502	92·6	91·6	447,115	4,460	81,429	533,004
4. Wood and Paper Products ..	2,619,657	2,766,491	1,447,176	1,510,149	464,931	493,210	1,912,107	2,003,359	73·0	72·4	4,798,634	1,539,889	2,395,189	8,733,712
5. Iron and its Products	1,122,306	1,209,202	936,861	974,212	118,122	123,697	1,054,983	1,097,909	94·0	90·8	1,599,536	1,492,993	238,210	3,330,739
6. Non-ferrous Metal Products ..	659,883	701,970	569,848	607,151	17,567	17,911	587,415	625,062	89·0	89·0	1,101,393	10,381,346	282,041	11,764,780
7. Non-metallic Mineral Products ..	272,036	314,221	212,544	241,583	8,712	9,157	221,256	250,740	81·3	79·8	431,523	1,190,469	19,295	1,641,287
8. Chemicals and Chemical Products	493,317	525,762	384,868	407,580	38,565	40,296	423,433	447,876	85·8	85·2	1,361,556	1,293,721	152,456	2,807,733
9. Miscellaneous Industries ..	34,622	37,096	32,027	33,499	2,457	2,918	34,484	36,417	99·6	98·2	64,693	21	—	64,714
TOTAL ..	6,009,521	6,415,851	4,196,534	4,420,105	715,377	760,630	4,911,911	5,180,735	81·7	80·7	10,495,523	15,904,207	3,211,609	29,611,339

MINING INDUSTRIES

Industry	A	B	C	D	E	F	G	H	I	J	K	L	M	N
Metal Mining	497,686	565,356	423,670	459,664	53,621	77,038	477,291	536,702	95·9	94·9	1,271,462	7,408	195,086	1,473,956
Non-metal Mining	86,240	96,470	70,128	74,965	2,984	3,669	73,112	78,634	84·8	81·5	157,741	—	6,065	163,806
Sand, Gravel and Stone	52,604	57,400	29,524	32,682	807	807	30,331	33,489	57·6	58·3	31,816	—	361	32,177
Fuels	254,773	269,231	124,036	127,798	23,390	23,922	147,426	151,720	57·9	56·4	177,642	—	47,336	224,978
TOTAL ..	891,303	988,457	647,358	695,109	80,802	105,436	728,160	800,545	81·7	81·0	1,638,661	7,408	248,848	1,894,917
GRAND TOTAL ..	6,900,824	7,404,308	4,843,892	5,115,214	796,179	866,066	5,640,071	5,981,280	81·7	80·8	12,134,184	15,911,615	3,460,457	31,506,256

hydro-electric and thermal electric power, for many years. Commissions with power to generate, purchase, transmit, distribute, sell, etc., electric power have been formed in Alberta in 1944, and in Prince Edward Island and in British Columbia in 1945.

The British Columbia Commission purchased some generating stations and generated and distributed power during 1947. It also began construction of a hydro-electric plant. The other two commissions have not yet become active in the central electric industry, but the principal of public ownership of power plants has been established in every province.

The active commissions generate electricity and also purchase electricity from private companies and in 1944 accounted for one-third of the total sales to consumers, measured in kilowatt hours. On a revenue basis and on a customer basis the pictures were somewhat different. The publicly owned stations, including both provincial and municipal stations, served over 86 per cent of the domestic customers and their revenues were 56 per cent of the total collected from the consumers.

The following tables show statistics of publicly owned and privately owned central electric stations in Canada at five year periods.

CENTRAL ELECTRIC STATION STATISTICS BY CLASS OF OWNERSHIP

Year	*Capital*		*Revenues*		*Domestic Customers*	
	Public	*Private*	*Public*	*Private*	*Public*	*Private*
	$	$	$	$	*No.*	*No.*
1919	128,955,567	287,558,443	22,300,525	35,552,867	Not Available	
1924	302,010,513	326,554,580	35,583,198	39,033,665	566,016	422,464
1929	369,960,262	685,771,270	52,008,652	70,874,794	690,853	601,628
1934	474,469,730	956,382,436	47,154,612	77,309,001	771,467	630,516
1939	549,898,546	1,014,704,665	59,345,920	92,535,049	898,569	725,103
1944	*628,998,930	*1,149,225,710	110,280,159	104,986,232	†1,277,083	†629,369
1945	Not Collected		113,432,962	101,672,511	1,344,624	642,736

* 1943 Capital—changes in Quebec in 1944 are not reflected.

† Affected by transfer of Montreal Light Heat and Power Company to public ownership in 1944.

RESEARCH IN CANADA

THE COMMITTEE OF THE PRIVY COUNCIL ON SCIENTIFIC AND INDUSTRIAL RESEARCH

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The Minister of Agriculture
The Minister of Trade and Commerce
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The Minister of Mines and Resources

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CANADA'S wartime research organisation has now been modified to suit post-war needs, but existing facilities have been greatly expanded to provide the best possible laboratory services for Canadian industry. Three new divisions and several new sections of the National Research Laboratories have been established; radar and other war equipments are being adapted to commercial use and it is now possible as Sir Robert Watson-Watt said recently: " to offer more than the moon and the stars " to mariners and airmen; hundreds of investigations are in progress; and the Council of National Research is actively engaged in the promotion and co-ordination of scientific research in all parts of the Dominion.

An Atomic Energy Research Division has been established at Chalk River to investigate the applications of atomic energy and the use of its products in industry and medicine. A Division of Medical Research has been organised to stimulate and support investigations in this broad field of human interest. A Building Research Division is shortly to be set up to study practical problems relating to construction materials and their use. Work is progressing on the building of a Prairie Regional Laboratory at Saskatoon for the promotion of studies on the better utilisation of agricultural surpluses, notably wheat, and farm waste products such as straw. An Electrical Engineering and Radio Branch has been created to co-ordinate and direct work in this growing field. The Chemistry Division has been freed from wartime requirements for routine testing and its activities have been regrouped into two new branches: (i) Fundamental Chemistry, and (ii) Applied Chemistry. The tailless glider designed and built in the aeronautical laboratories, was test flown successfully in the autumn of 1947 at Namao airport near Edmonton. A Flight Research Section has been established at Arnprior, Ont., in co-operation with the Royal Canadian Air Force. A new section of the Mechanical Engineering Division has been formed to deal with problems in gas dynamics, including work on gas turbines and jet propulsion. More detailed reference to some of these and other achievements is contained in the following paragraphs.

Atomic Energy Research

In June, 1946, the Dominion Parliament passed " The Atomic Energy Control Act." This Bill provides means for the development of atomic energy and for the control of work in this field as may be required in the interest of public safety and in the fulfilment of international obligations. A Board of five members was set up, to act under the general direction of, and to report to the Right Honourable C. D. Howe as Chairman of the Committee of the Privy Council on Scientific and Industrial Research. The President of the National Research Council is an *ex officio* member of the Atomic Energy Control Board; other members are appointed by the Governor in Council and hold office during pleasure.

The engineering, construction and operation of the vast plant and townsite at Chalk River were carried out by Defence Industries Limited, under contract with the Department of Reconstruction and Supply. As the project developed, both Defence Industries Limited and the Government authorities came to the conclusion that, as the undertaking was really a pilot plant which must be closely integrated with the Research Laboratories, it would be better if one Government organisation were to assume the over-all operating responsibilities of both the Research Laboratories and the industrial establishments. On consideration of this problem, the Atomic Energy Control Board at its first meeting recommended that the National Research Council be asked to undertake the integration of the various projects and their operation on behalf of and in accordance with the policy of the Atomic Energy Control Board. This was agreed to and on 1 February, 1947 the Council took over full responsibility for the administration and operation of the entire atomic energy development at Chalk River, and will carry on these activities in accordance with broad general policies fixed from time to time by the Atomic Energy Control Board.

Information Services

In the newly established Division of Information Services, which includes sections dealing with the library, liaison offices, *Canadian Journal of Research*, and technical inquiries, all activities relate to various phases of the collection and distribution of scientific and technical information. Of special interest at this time are numerous reports on technical developments in Germany. Recent studies carried out in that country confirm the view that, on the whole, the United Nations have not lagged behind in scientific and technical progress; in a number of fields, however, Germany had worked out improved methods of production and developed special products of direct interest to Canadian industrialists. Reports on enemy science and technology are being distributed to industrial and scientific organisations in Canada. Arrangements have also been made to secure for scientific libraries copies of German scientific books and journals to fill the gaps caused by suspension of the book trade during the war. On request, a specially trained group of workers searches not only German but many other reports for the solution of specific manufacturing problems. This service has increased substantially and further expansion is contemplated.

Medical Research

Most of the activities of the Division of Medical Research will be carried on, as heretofore, in the laboratories of the medical schools and hospitals throughout Canada.

The Division set up, at the request of the commercial manufacturers of streptomycin, a Committee to advise on the distribution of streptomycin, and to make recommendations as to clinical conditions for which this substance might be used. The manufacturers, for the great part of the year 1946, placed all of their product in the hands of this Committee to be distributed gratis, until commercial production should be able to meet public demand. Fortunately this occurred by the end of the year.

Radio Research

The most important recent contribution in the development of radio aids to both air and marine navigation was a radar distance indicator which enables an aircraft pilot to ascertain his distance from one or more pre-selected ground stations, thereby determining his position. Unlike previous efforts toward a similar purpose, the distance is read directly in miles on a simple meter and no interpretation or computation is necessary. This device has very convincingly outperformed foreign devices in open competition.

A more recent addition to this same unit to enable the pilot to determine his direction from pre-selected stations as well as distance, is now awaiting airborne trials.

In the Marine field, effort has been devoted to the installation of surplus radar equipment on Canadian merchant ships. The success of this programme has been most gratifying and many ships' captains have reported in glowing terms of radar performance.

Canada has long been a leader in advancing the technique of surveying, and Canadian surveyors have employed the most modern devices to solve their problems. It is not surprising, therefore, that they were quick to recognise the possibility of employing radar in their work. The National Research Council is co-operating in the development of radar equipment by means of which it is hoped to determine base lines up to 300 miles long with an accuracy of 20 ft. and to permit spot fixes of photographic aircraft with an accuracy of 100 ft. in 200 miles.

The laboratory is engaged also on the development of an accurate radio altimeter capable of providing a continuously recorded altitude measurement, accurate within 50 ft.

In co-operation with the Canadian Radio Wave Propagation Committee, National Research Council engineers undertook the direct supervision of a study of the effects of the troposphere on radio-wave propagation in the 10-cm. and 3-cm. regions. Experimental work was completed recently, and the data are now being analysed. Exceedingly interesting results have been obtained. Many examples of tropospheric " skip-distance " were noted and the data should be of value in the evolution of the theory of radio-wave propagation in the lower atmosphere.

At the request of the Royal Canadian Air Force and the Army, communications along the Alaska Highway and in the Yellowknife region, have been studied and some experimental installations of microwave radio have been made.

The laboratory has been co-operating also with the Canadian Pacific and the Canadian National Railways in establishing an experimental chain of radio stations between Montreal and Windsor, operating on the 10-cm. band. It is possible that communication links of this type may supplement land lines or even supplant them in some cases.

Of particular interest is a 5,000,000-volt direct current generator now under construction in the electrical engineering laboratory for the Division of Atomic Energy at Chalk River. This unit will be employed in the acceleration of both electrons and ions in nuclear research. An experimental cavity-type accelerator, the principle of which springs from the development of radar equipment during the war, is also under construction and may be employed for a similar purpose.

Considerable study has been devoted also to a special instrument to discriminate between spurious or interfering radar pulses and desired pulses. If this study yields successful results, it should be possible to operate pulse systems with much closer channel spacing than has been possible heretofore.

Influence of radar on the approach to everyday problems is very noticeable in the development of a National Research Council fault-locator for long-distance power lines. This device imposes a sharp pulse on a line and measures the time of propagation and the return of the echo from any discontinuity in the system. Open circuit, short circuit, and partial faults can be identified readily. Preliminary application of this unit has been encouraging.

Studies have been carried out on the radio disturbance created by the sun in the 10-cm. band. Very interesting results were realised on the day of the eclipse, 23 November, 1946. A systematic comparison of the " clutter " from rain and snow on both the 3- and 10-cm. bands is under way at Scarboro.

General Physics

In the Division of Physics and Electrical Engineering work has been undertaken to provide first-class scientific standardisation facilities. New apparatus has been ordered in this connection for the electrical measurement, heat, general physics, metrology and optical laboratories.

In the field of geophysical research and prospecting, an entirely new project with a magnetic airborne detector (M.A.D.) has been undertaken, with the good offices and great help of the United States Navy and Army authorities in the loan of essential equipment.

In other fields of geophysics, sonic and ultrasonic echo-ranging equipment has been designed to determine the depths of relatively shallow over-burdens in certain terrains and field work begun. Also under way is an attempt to discover radio-active deposits (of uranium) by the use of Geiger counters let down into vertical drill holes.

Conversion of the 600-kv. rectifier set to permit its use in accelerating ions rather than electrons has been completed. The necessary auxiliary control and detection equipment for measurements in nuclear physics, has been built and experiments have been undertaken. Researches with this positive-ion beam include studies of fission by fast neutrons and cloud-chamber investigations of certain atomic disintegration.

Certain possible uses of very high-intensity, high-frequency sound are being investigated, for example its lethal effect on some type of bacteria. Experiments were carried out following a suggestion that high-frequency vibrations could be used to improve the soldering of aluminium. The technique used may be helpful for certain special applications. In the reverberation chamber several types of acoustical materials have been tested. The an-echoic, or " dead " room was completed and put to considerable use. Measurements in it have been made on loud-speakers, hearing aids and on a model aircraft-engine exhaust stack.

Work has been resumed and considerable progress made in providing an absolute standard of mutual inductance.

Heat Studies

Two experimental buildings of the radiant-heating project have been constructed on the Montreal Road site, and heat was turned on in them in December. Interesting results will be available in the Spring. One of these buildings is floor- and ceiling-heated, using the pipes-in-concrete method of panel construction. The other is floor-heated using pipes in an air space under the floor.

Work on the thermostatic control of heated refrigerator cars, interrupted by the war, has been resumed. By improving the design of the heat-control mechanism much better results have been obtained than ever before but the thermostat itself is still too sensitive to mechanical vibration.

An infra-red detector was used successfully to ascertain whether joints were heating on transmission lines. The experimental model is being rebuilt to make it more suitable for field work.

An apparatus has been completed by means of which the thermal conductivity of metals can be measured up to 800°C. Tests have shown that the results obtained on this instrument correlate well with determinations made in other countries so that it can now be used with assurance for the measurement of thermal conductivities of metals as required.

Measurements on the thermal conductivity of building materials and on the moisture transmission of building papers have been carried out as requested. An apparatus to supply moisture in homes was tested. Work is being continued on migration of moisture. Importance of this work arises from the necessity of understanding how wood and wheat dry out, to improve forest-fire-prediction methods in the one case, or grain-storing techniques in the other.

Work is being done to find the cause of low friction of ice under certain conditions. Application of a sound scientific explanation of the fundamental phenomena could be made to the very practical problems of getting sleighs to slip and tyres to grip. The heating of a sleigh runner causes only a slight improvement in its sliding quality on ice according to results obtained to date.

Photographic Research

A programme of work is under way to determine the important factors in making positive prints on paper so that the maximum amount of information can be recovered from the negative. Work on night photography has been concluded and a paper describing the final techniques is in process of publication. The development of a tri-camera mount for the B-25's was completed and a paper published.

In high-speed motion-picture photography research, considerable progress has been made in the design of a properly engineered model of a camera to attain 200,000 frames per second and higher speeds are anticipated. A special experiment has shown that gears can be expected to operate satisfactorily at the speeds contemplated.

Studies have been made on the factors affecting the dimensional stability of film under actual survey conditions. Interesting results have been obtained and published. A densitometer has been completed and is functioning satisfactorily. Further work has been done on the measurement of emulsion speed for aerial photography by a resolving power criterion.

The Canadian Photographic Research Committee has been replaced by an Associate Committee on Photographic Research. This Committee has sponsored a large amount of the photographic research done in the laboratory. Work has also been done on photometric standardisation. This subject, during the war, was neglected in favour of more urgent demands.

Work in colorimetry has been initiated. A General Electric recording spectrophotometer is being installed in order that useful work may be done for industry in this field.

Food Studies

Most of the work in the Division of Applied Biology falls into two main classes: (i) preservation of food, and (ii) industrial utilisation of agricultural wastes and surpluses. In addition, one group is primarily concerned with fats and oils, because of the current world shortage of both edible and industrial fats. Prior to the war, the Division was active in several fields of plant science, and this work is being resumed. In response to repeated requests for investigations in the field of animal science, it is hoped to initiate a group that will concern itself with problems in this general field.

In foods, work has been continued on two important export items, egg products and pork products. Dried egg powder, sugar-dried egg, liquid and frozen egg, and shell eggs have all been studied in relation to export requirements and transport facilities. Similar work on pork products is in progress, with special attention to salt concentration of export bacon and effects of processing on vitamin content. Work in the refrigeration laboratories includes an effort to improve the performance of refrigerated railway cars for the safe carriage of fast-frozen foods.

Dairy products are under investigation, particularly butter and dried milk. A Fritz butter-making machine secured from Germany interested the National Dairy Council of Canada, since the device produces butter continuously at the rate of 1,000 lb. per hour. Butter produced in Germany on this machine did not meet Canadian legal standards since it was neither washed nor salted and contained too much water and milk solids. Preliminary trials indicate that all these difficulties can be overcome, although the keeping qualities of the butter produced have yet to be determined. Successful Canadian application would mean a large reduction in butter-making costs.

In nutritional investigations, efforts are being made to improve the versatility of chemical methods of assay for riboflavin, thiamin, and niacin, since the present methods are limited in their application. During the year a better method of estimating riboflavin was evolved. These methods are being applied to an extensive study of cured pork at all stages of processing.

Work on the processing and treatment of domestic oils for edible purposes was continued. Much time has been devoted to linseed oil in an effort to produce a fraction suitable for edible purposes and another fraction with superior properties for use in the paint industry. While this can be done with solvents it appears that the complete objective cannot be attained in this way. Other methods of attacking the problem are being explored.

Industrial Uses for Agricultural Products

Recent expansion of work on industrial utilisation of agricultural wastes and surpluses includes the erection of a modern laboratory on the campus of the University of Saskatchewan in Saskatoon. The building is well under way. Some of the laboratory and pilot-plant equipment has been delivered, and a small group is actively at work in space borrowed from the University of Saskatchewan. With the completion of the building it will be possible to expand the work with the object of making important contributions to both agriculture and industry.

Meanwhile, in the Ottawa laboratories, investigations on the production of new chemicals from farm crops have been continued. During the year, pilot-plant studies on the production of *levo*-2,3-butanediol from wheat with *Aerobacillus polymyxa* were completed. Contamination difficulties which at one time were serious, were completely overcome, and fermentation efficiencies of 90-100 per cent were consistently obtained. A start has been made on a study of other new fermentations. Several hundred strains of bacteria of the *Bacillus* group and a number of *Serratia* have been examined in the laboratory. The *Bacillus* group produces glycerol as well as diol; and some *Serratia* produce formic acid in addition to diol. Several of the more promising strains of both groups were to be studied on a pilot-plant scale during 1947.

A study of the reaction between 2,3-butanediol and phthalic anhydride led to the development of a method suitable for the commercial production of the resulting phthalate resin. Its physical properties mark it as outstanding. This new material has a low solution viscosity, and is therefore of interest to paint manufacturers. It is lustrous, very hard, and almost colourless, has a wide range of solubilities in industrial solvents and is highly water- and light-resistant. Its flow point is much higher than that of commercial ethylene phthalate. It is now being evaluated as a non-convertible binder in paints, lacquers, and varnishes.

Because of shortages of sugars and corn syrups, wheat syrup was investigated on a semi-pilot-plant scale. The pilot plant has been redesigned and used for separating starch and gluten from wheat; first quality syrups were prepared from this starch. Preliminary experiments indicate that wheat gluten can be flash dried; equipment is now being assembled to test this process on a larger scale.

Work on plant science, held in abeyance during the war, has now been resumed. A project was initiated on the culture of chlorophyll-deficient plants, including albino corn and albino barley, as a method of attack on certain problems in the field of photosynthesis.

Chemistry

Reorganisation of the Division of Chemistry into two branches (i) Fundamental Chemistry and (ii) Chemical Engineering, has been completed.

In the Fundamental Chemistry Branch, the organic section has been engaged in research on synthetic rubber and the isolation of new alkaloids, while the work of the inorganic section has been devoted entirely to investigations connected with the atomic energy project.

Many studies of photosensitised reactions have been carried out, including investigations of free radical processes by the mirror technique. A van de Graaf generator is under construction and extensive investigations are planned on the effect of high-speed electrons on simple organic gases.

Studies in surface chemistry have included the effect of physical adsorption on the electrical conductivity of activated carbon rods and the length changes of carbon rods caused by physical adsorption of vapours.

An investigation of the physical properties of gases at high temperatures was undertaken and apparatus built which will permit precise determination of equation of state data up to a temperature of 1500°C. and a pressure of approximately 100 atmospheres.

Progress is being made in the organisation of sections on organic spectro-chemistry, Raman spectroscopy, radioactivity (to study tracer problems); and in low-temperature calorimetry.

The main activity in chemical engineering has continued to be concerned with the atomic energy project. Staff from Chalk River were responsible for providing water-treatment and heat-transfer data for the pile cooling system.

Another major project has been the design of a new chemical engineering building which is to be erected on the Montreal Road site.

Industrial Applications

Textiles.—The textile section has completed a number of investigations initiated during the war which have definite peacetime applications, such as the treatment of fabrics with dust-laying oil for hospital use; further work on the rot-proofing of textiles; thermal insulation of protective clothing, and impact testing of cordage materials. Co-operation has been continued with Government departments on wool standards, the testing of flax quality and in the drafting of textile specifications. Co-operation with industry has been continued in the adaptation of textile materials to special uses, and in the application of improved methods to the laundering and cleaning of textiles. A great deal of original work was done on the use of synthetic detergents, water repellents and moth-proofing agents.

Corrosion.—An important project is the study of corrosion of steel by water, under static and under flow conditions. In this connection the mechanism of corrosion inhibitors and the role of the potential of metals during corrosion are being investigated. Equipment is being designed to obtain reproducible results, in testing the corrosion resistance of metals under salt spray or high humidity conditions. Investigations have also been undertaken in co-operation with the atomic energy project on the corrosion resistance of welded special stainless steels before and after heat treatment.

Catalysis.—Catalytic air oxidation of ethylene to ethylene oxide has been studied and preliminary data have been obtained on a new type of catalyst. Deuterium compounds have been prepared for use in the atomic energy project.

Protective Coatings.—The protective coating section has continued an extensive research into the chemistry of long-chain unsaturated fatty acids, which are an essential constituent of drying oils in protective coatings. Another continued project was an investigation of rot-proofed coatings for wood. Advice and co-operation have been given Government departments on questions of paint standards and specifications.

Rubber.—The rubber section has continued to advise Government departments and the industry on questions relating to natural and synthetic rubber. Much of this work concerned special applications of synthetic rubber. A current project is the standardisation of tests for ageing, resilience, abrasion resistance and tensile strength of rubber carried on in co-operation with Polymer Corporation.

Applied Physical Chemistry.—In applied physical chemistry a number of investigations initiated during the war may lead to important peacetime applications. Some of these are: (i) further work on a new method of propeller de-icing; (ii) control of frost on standing aircraft; (iii) development of an effective rain repellent for aircraft windows; (the latter has now been adopted by the Royal Canadian Air Force and is under test in England); (iv) development of a stable catalyst for the oxidation of carbon monoxide to permit accurate determinations of low concentrations in air, which is a continuation of a wartime investigation undertaken at the request of the Chemical Warfare Directorate. At the request of the Ontario Department of Lands and Forests an investigation is being made of atmospheric pollution by smelter smoke in the Sudbury district. A survey has been made of the concentration and distribution of sulphur dioxide from smelter smoke in the area at different levels under varying atmospheric conditions.

Colloids and Plastics.—In colloids and plastics, testing of materials for industry and Government departments has been continued. Assistance has also been given to the Canadian Standards Association in the drafting of a Canadian code for head and eye protection. Relation between chemical structure and plasticiser reaction is being studied. Further work has been done on the activation of contact-bleaching clays. Lubricating problems in connection with railway-car journals have been investigated. In addition, many studies in colloid chemistry have dealt with special subjects of fundamental interest. On the applied side, several projects supported by industry are in progress. Results of these studies are made available to the firms concerned.

Explosives.—The explosives laboratory, operated jointly by the Department of Mines and Resources and the National Research Council, has continued to advise the

Government on questions relating to industrial and military explosives and has been active in a number of research projects dealing with fundamental properties of explosives.

Customs and Excise.—The customs and excise laboratory operated by the National Research Council for the Department of National Revenue, has continued to perform the work required of it by statute.

Aeronautical Engineering

Glider.—The tailless glider has been one of the major projects of the aeronautical laboratories throughout the year. The glider is very well equipped with photographically recording flight instruments designed and constructed in the laboratories. Readings from these instruments, accumulated during flight trials, are now being studied to determine the control and stability characteristics of tailless aircraft.

Flight Research.—Inauguration of the Flight Research Section of the aeronautical laboratories at Arnprior is another item of major importance. Work has been initiated in co-operation with other sections of the National Research Laboratories, on airborne magnetometer apparatus useful for determining ore bodies from the air, airborne radar altimeters useful for topographical survey; and further work has been done on full-scale flying projects for the aerodynamics section including the study of aircraft controls and aircraft stability. The facilities were used to demonstrate Australian multiple-track radar beam before PICAO officials and others.

De-icing.—In co-operation with the Royal Canadian Air Force and British Ministry of Supply (Air) an investigation of aircraft de-icing is proceeding using a Consolidated RY3 aircraft which has been equipped for extensive aircraft de-icing tests and for the collection of meteorological data with respect to ice formation. Trials were carried out under the scientific direction of the low-temperature laboratory in co-operation with the British Ministry of Supply who supplied the aircraft and two observers, the Canadian Department of Transport's Meteorological Service who supplied an observer, and the Royal Canadian Air Force who maintain and fly the aircraft. Woven-wire-type heater elements have been designed for both continuous and cyclic wing de-icing tests on aircraft.

Wind Tunnels.—There have been more wind-tunnel tests on new Canadian-designed aircraft than ever before. Tests on two aircraft started prior to 1946 were completed in that year; tests on two more aircraft were both started and completed in 1946, and construction of models for another aircraft is under way. In addition, wind-tunnel and spinning-tunnel models have been constructed and tests are nearing completion on a new American-designed aircraft for a Canadian firm.

An intensive programme has been undertaken to train junior engineers for fundamental research in the field of gas dynamics. At the same time, extensive calculations have been made on the various types of gas-turbine power-plants with particular attention paid to the significance of turbine blade cooling by compressor air-bleed methods.

Engine Research

Work proceeded in the engine laboratory during 1946 on an investigation of single-cyclinder engine units along the pattern set up by the C.F.R. Aviation Fuels Division. The engine laboratory is now in a position to rate fuels in regard to detonation characteristics on both the Perseus and Peregrine single-cyclinder engines.

Another engine laboratory project in 1946, the study of the glow-plug method of ignition was undertaken (a) to eliminate high-tension ignition which requires special precautions at high altitudes to avoid electrical leakage and (b) to reduce detonation. Work is proceeding. A theoretical study of an aircraft lubrication system with reference to the effects of entrained and dissolved air has shown that the altitude at which the oil system fails, depends largely upon the percentages of entrained and dissolved air in the system.

Hydraulics

The hydraulics laboratory completed tests on a model of a Great Lakes' harbour to determine the effect of a proposed pier extension upon sand-bar formation in the harbour entrance. Construction of a model of a section of a large river in Canada was completed and tests are being conducted to determine the effects of various types of dykes upon river currents and sand-bar formations. In the case of both river and harbour tests it was possible to determine in a few hours and at small expense the effect of large expensive full-scale structures.

Model tests were performed on a proposed spillway structure designed to carry the flood discharge from a large reservoir formed by a dam. These tests were primarily conducted to determine discharge capacity but they also showed that modifications could be made which would produce marked improvements in the flood conditions.

Fuels and Lubricants

Research on low-temperature lubricants has yielded much valuable information on flow characteristics of greases at low temperatures. Work on lubricating oils included examination of oils and filter cartridges from high-temperature road tests, and a problem in the lubrication of parachute mechanisms at low temperature. A new supercharged knock-test engine was installed for the testing and development of high-octane number fuels. Methods for measuring detonation, and also methods for determining octane numbers of very small fuel samples were investigated.

Testing was continued throughout 1946 of domestic oil-burning equipment for the Canadian Standards Association in connection with its fire-hazard listing service. Seventy-seven appliances, comprising 22 furnace oil burners, 33 range oil burners, 15 space-heater oil burners and 7 other types of appliances, submitted by 45 different dealers have been under test. Listing was recommended for 42 of these appliances of which 80 per cent had first to be modified to meet requirements.

Structures

In order to demonstrate to Canadian boat builders the possibility of moulded plywood techniques for the construction of sporting craft, a 14-foot international dinghy was constructed. Five-ply veneer, 5/16-inch thick, was used for the hull which was fabricated by the rubber-bag method using a thermosetting resin adhesive. Only one rib, which was made of laminated spruce and located just after the mast, was used. The hull was bonded to a laminated spruce keel.

Artificial Limbs.—Work on artificial limbs has continued in the structures laboratory making use of processes developed during research on moulded aircraft components. A latex hand, a hollow impregnated fabric hand and moulded forearm sections have been developed and several Syme's prostheses have been designed and constructed, and an above-knee leg has been made from low-pressure fabric laminations. Some of the limbs produced by the structures laboratory are undergoing service tests on amputation cases.

Building Research

As previously noted, a Building Research Division is soon to be established. For several years the National Research Council has been engaged in various research projects that have had for their object the improvement of building materials or the betterment of housing construction. Intensive work was initiated some years ago on the requirements for structures and the National Building Code was subsequently published. This is a document designed for use as a model in the drafting of municipal building by-laws. A model zoning by-law was also prepared. Both of these publications have been extensively used as reference works by Canadian municipalities.

In the laboratories, numerous studies have been directed towards the improvement of various conditions in housing. Mention may be made of studies on efficiency in lighting, researches on sound-deadening in walls and floors, investigations on the relative values of different types of insulating materials, measurements on vapour barriers used to prevent condensation of moisture in outside walls. Work has been done on ventilation, and reports have been issued on heat losses through windows and moisture on windows. Tests are being made continuously on oil burners to ensure their safe operation. One of the earliest studies made by the Council was on the subject of fuel saving possibilities in house heating.

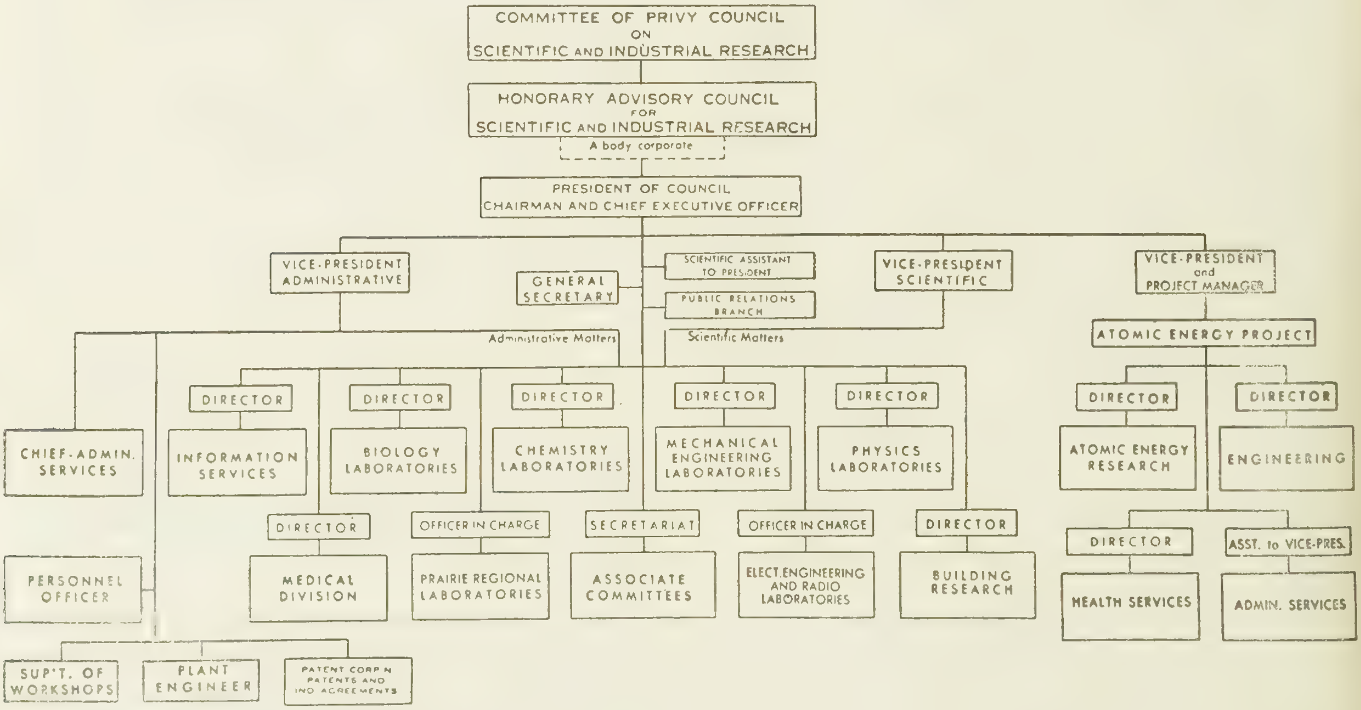
Among the newer projects in this long series is the current investigation on problems involved in " panel " or radiant heating. The purpose of this study is to find satisfactory answers to many questions raised by heating engineers regarding this new plan of heating whereby the source of heat is in or under the floor or in the ceiling instead of being supplied by conventional type radiators. Two experimental houses have been built on the Montreal Road site for this study and interesting data will be available at the end of the present heating season.

Another important advance in the matter of low-cost housing has been made in the development of a modular system for the construction of prefabricated houses. By means of prefabricated wall panels and flat roof panels incorporating structural strength, insulation, vapour barrier, finished surfaces, and a connection system, the construction of houses almost entirely in the factory under mass production methods will be feasible. The various standard wall panels, all with identical over-all dimensions permit the adoption of practically any floor plan to suit the requirements of the site and the builder. Further work on the details of panel fabrication is in progress.

With the establishment of the Building Research Division all of this work will be brought sharply into focus and new projects will be initiated as required to provide complete coverage of Canada's most pressing problem, the provision of adequate and efficient housing for its people.

In all of its activities the National Research Council seeks to provide an effective medium for leadership and co-operation in the training of competent research workers and in the application of scientific knowledge in the universities and industries throughout the Dominion.

NATIONAL RESEARCH COUNCIL, CANADA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MANUFACTURES AND SECONDARY INDUSTRIES

By C. H. HERBERT

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WHILE facing the risks involved in making any generality, it may be said with some truth that wars, tariffs, and the development of hydro-electric power have been responsible for the most spectacular developments in Canadian manufacturing industry. Under the French regime all attempts to establish industry in Canada—and great efforts in that direction were made by Intendent Jean Talon—met with comparative failure, being overwhelmed by the concentration of energy and interest in the fur trade. Creighton, for example, in his *Dominion of the North* writes as follows: " The brewery which Talon had established ceased to operate after his departure (1672); the lumbering and shipbuilding industries made no great progress. Skilled workmen were even more scarce and expensive than village labourers; and, like agriculture, the traditional trades and occupations were scarcely able to compete with the rewards and excitements of fur trading."

After the English conquest and with the gradually increasing settlement, industry began slowly to expand, but it was largely confined to flour and lumber milling and it was not until early in the 19th century, under the stimulus of the Napoleonic Wars, that the first great industrial boom took place in Canada. This was shipbuilding, and was directly due to the blockade of the Scandinavian countries carried on by Napoleon during his intensive economic warfare. Tariffs, however, also played an important part, coming into the picture as an immediate consequence of the blockade.

Britain, finding herself cut off from her supplies of Scandinavian lumber, which were vital to her shipbuilding industry and thus to her national defence, turned to the British North American colonies, and so as to stimulate shipments from them raised the colonial preference very sharply. Canada, however, did not content herself with shipping lumber; a shipbuilding industry sprang up rapidly in most of the small harbours on the Maritime seaboard and on the St. Lawrence shore from Quebec to the Gulf. The industry grew quickly on a large scale and continued to flourish for three-quarters of a century until it finally collapsed, partly due to the adoption of Free Trade in Great Britain and partly to the rapidly growing competition from steam and steel.

During the latter half of the 19th century, however, new industries were beginning to spring up in Canada, based on iron. Once again we find war giving them a stimulus—this time the American Civil War. Creighton quotes James Watson, President of the Manufacturers Association of Ontario as stating: " I trust that it will be borne in mind that the rapid development of manufacturing in this country during the past few years is almost entirely due to the peculiar position of the United States from the commencement of the late civil war." Edward Gurney of the Gurney Stove Company—a concern that still flourishes to-day—declared in 1876 that his business had quadrupled since 1861 and that this was due to the fact that wartime inflation in the United States had removed competition from that country and had virtually given to him the Canadian market.

During the last quarter of the 19th century the " National Policy " of protection produced a favourable climate for the steady development of manufacturing industry in Canada. For a long time, however, progress was relatively slow and with few exceptions it was confined to the " local industry " type of business, concerns of small size supplying their immediate neighbourhood. In those days, when technological improvements had not developed to the point where they placed such a high premium on large scale operations, companies of this type could operate favourably under the protection that was given to them by the higher transportation costs their more distant competitors had to meet.

Many of these companies, particularly those engaged in metal working, received a substantial stimulus from the First World War. During the latter years of that war Canada engaged in making shells in tremendous quantities and much of this business was let out to relatively small companies all over the country. Prices were good, and the profits that were made from this business permitted them to expand and improve their plant and in many cases provided them with a " cushion " that enabled them to get through many years of difficulty. As the years passed, however, and as technological developments increased the advantage of large scale operations, the benefit of closeness to a market became relatively less important and these small local industries encountered a variety of difficulties. A very limited number of them have managed to maintain their individuality and their independence to this day, but most of them have either disappeared or have allied themselves with larger American companies. In addition to the continued pressure for expenditure on technological improvements, a basic problem facing industries of this type has been to attract competent personnel into these relatively small companies once the people who built them up find it necessary to retire.

There were of course certain important exceptions to the general tendency of Canadian industry to be small and local. Two major industries which developed strongly during the first part of the 20th century were steel and textiles, both of them culminating in large-scale mergers and evolving into industries controlled by a small number of relatively large firms. They were characteristic of industries supplying a relatively small market under the protection of a high tariff wall; they produced a small quantity of a large variety of products and consequently their operating costs were much higher than if they had been able to produce larger quantities of a smaller number of goods. Another industry which might be mentioned is chemicals. In the early 1920's a number of chemical and explosive manufacturing companies were amalgamated to form Canadian Industries Limited, which is a wholly-owned subsidiary of Imperial Chemical Industries and E.I.

DuPont and Company, and today plays a leading part in the greatly expanded chemical industry in Canada.

During the 20th century, and particularly during the 1920's, the development of hydro-electric power and the simultaneous conquest of the problems of the long-distance transmission of electricity gave a great stimulus to Canadian industry. Canada is extremely fortunately situated in regard to water power. The great fresh water areas of the country are largely located at considerable heights above sea level and the falls and rapids that carry the water down to the districts best situated for industrial development are ideal sites for water power development. Another fortunate occurrence is that the large proportion of these water power resources are in what has been termed the " acute fuel zones "—areas of Quebec and Ontario which are otherwise eminently well suited for industrial development but which are without native coal that can be economically produced.

One somewhat technical aspect of electric power production should be mentioned, for it plays an important part in Canadian industry. It is the difference between primary—or firm—power and secondary power. Primary power is power which is supplied under a contract which requires that it be delivered when and as the recipient wants to have it. Now it so happens in practice that all the customers of a power system never require their maximum deliveries at the same time, and there is a considerable hourly and even daily difference in the rate at which the plant must operate to produce the power required. During the time when the demand for power is not at its peak, part of the generating capacity would normally be idle, but to avoid this the Canadian power companies have developed the principle of producing secondary power which is to be delivered to companies at such time as the power company is able to deliver it rather than at such times as the recipient desires to have it. Secondary power, of course, is only useful in an operation where it is not necessary that power should be received at certain specified times, and it happens that the newsprint industry is one which can use secondary power. Its plants are operated on low pressure steam, and the steam can be generated when the power is available and then stored in boilers and used as required, being replenished when power is again available. Secondary power, being what one might call " waste " power, since if it was not produced the generating capacity would be idle, is sold at a much cheaper rate than primary power. It consequently has played a most important part in the development of the Canadian pulp and paper industry.

Along with the development of cheap hydro-electric power, two industries closely connected with Canada's national resources made rapid strides. One was newsprint and wood pulp, stimulated by the industrial boom in the United States and the consequent fantastic increase in newspaper advertising, and the other was mining and smelting, again stimulated by a demand arising from American industrial prosperity.

Another trend, which had existed throughout the development of Canadian manufacturing but which was intensified in the 1920's, was the expansion of branch plants or subsidiaries owned by foreign companies. In certain instances, such as Courtaulds, these were off-shoots of British companies but in the vast majority of companies their parentage lay in the United States. The variety of industries represented was so great that it cannot be enumerated in this article, but the two outstanding examples were the subsidiaries of American automobile companies and of American electrical goods manufacturers.

Pausing to take a look at Canadian manufacturing on the eve of the Second World War, the following features stood out. With the exception of a few large scale industrial operations—such as steel, textiles, farm machinery, chemicals, etc.—Canada's most spectacular expansion once again had followed the historical pattern of being in industries closely related to raw materials—on this occasion products of the mine and of the forest. There was still, however, an unspectacular but steady foundation of small and localised manufacturing industry. By 1939 the difficulties that were met by many of these were quite great, but once again war came to their rescue and gave them an even greater stimulus than had happened 25 years previously.

As a result of the Second World War and its aftermath, Canada's manufacturing industry has undergone changes, both quantitatively and qualitatively, which can only be described as tremendous. A number of tables are attached to the end of this article which show the pertinent facts about Canada's manufacturing industry.

Table II shows the principal statistics concerning the forty leading industries in Canada in 1946. Unfortunately this information is not available for any later years.

Table III shows capital expenditure on construction and on machinery and equipment for leading groups of industries for 1945, 1946 and 1947, and it also shows two estimates for 1948—a preliminary estimate made at the beginning of the year and a mid-year revised estimate. The size and distribution of these capital expansion programmes give a a good picture of the pattern that Canada's manufacturing industry will follow in the future. Table IV gives an historical summary of the main statistics concerning the Canadian manufacturing industry from 1917 to 1946.

A survey of the present position of Canadian manufacturing industries should have as its starting point a consideration of the expansion that took place during the war. This can roughly be divided into two categories. First of all there were the direct wartime industries—guns and small arms, shells, explosives, tanks, aircraft, and shipbuilding, etc. Much of this was undertaken by government-owned companies or by government investment in plants operated by private companies. The second category was the tremendous expansion of existing Canadian industries and the development of new industries to provide goods and materials required by the war industries.

Among these the following can be mentioned. Firstly, hydro-electric power capacity was increased by about 2 million horsepower, and 60 per cent of this increase was represented by the giant development at Shipshaw. Secondly, there was a large increase in the production of industrial raw materials. Many steel products, both in primary and rolled forms, and semi-fabricated non-ferrous metals, which previously were either entirely or largely imported, started to be manufactured in Canada. Particularly spectacular in this field was the expansion of the aluminium plant in the Lake St. John area, where output was increased from approximately 83 thousand tons in 1939 to 496 thousand tons in 1943. This plant was able to take advantage of the power development at Shipshaw and is close to tide water for the import of the raw materials.

Other important materials, the Canadian production of which was either started or greatly enlarged during the war, include numerous chemicals for various uses, such as sulphuric acids, nitrates, chlorine, and industrial alcohol; high octane gasoline; many drugs and vegetable oils; and new materials such as synthetic rubber, nylon and synthetic resins.

Thirdly, there was a large group of products in the metal-using field—machinery, machine tools, various types of cutting tools, rolling stock, trucks, etc., etc.—where Canadian production was either started or largely expanded during the war.

At the end of hostilities some of these war created plants, particularly those for munitions, aircraft and shipbuilding, had to be abandoned, but many of them could be adapted for peace-time uses. Some of them were converted relatively easily; for example, the government-owned aircraft plant at Malton, outside Toronto, is now operated by A. V. Roe & Company (Canada), and other examples of outstanding importance are the Kingston aluminium plant, two brass and copper plants and several chemical plants, all of which were built during the war by government funds for operation by private industry and which have now been purchased by their wartime operators.

The general run of wartime plants, however, provided much more serious problems of reconversion, and it is probably easier to regard this phase as an integral part of Canada's post-war industrial expansion. Table IV will show how great that expansion has been: it has amounted to over $2,500 millions for expenditures and prospective expenditures on buildings, machinery and equipment during four years. It is in part due to the fact that during the war many industries were able to make little or no capital expenditures, and many of them had in fact made few such expenditures since the late 1920's. In part, however, it represents—as the statistics of Canadian manufacturing show—a definite increase in Canadian manufacturing capacity, an increase stimulated by the pent-up demand for goods on the part of both individuals and corporate enterprises, both in Canada and abroad.

A few comments on the expenditure in the main categories in Table III may be of interest. The expenditures under the heading " wood and paper products " represent in large part the building of new chemical pulp mills, two or three of which are already in operation, to produce pulp for rayons, and cellulose plastics, and for a number of uses other than newsprint, and very largely for export. The expenditure in the groups " iron and its products " and " non-ferrous metal products " represent in substantial part the continued problems of reconversion in the metal-using industries. There is, however, considerable expansion of capacity, particularly in the field of farm machinery and electrical apparatus, the latter being particularly for the also expanding electric power and telephone industries. Capacity for processing aluminium has been enlarged, and an important development is the construction of a new mill for cold-rolled steel.

Capital expenditures in the textile industry largely represent an attempt to meet increased demands in the face of a labour shortage by modernising plant and equipment. Expansion has also taken place in the capacity to produce fibre yarns, filament yarns, rayon fabrics and nylon. The production of many basic chemicals has been expanded and also the manufacture of synthetic resins and other products based on the Polymer synthetic rubber plant. The category " vegetable products " includes some large new factories for the rubber industry, and " non-metallic minerals " includes the expansion of the petroleum refining industry, including the construction near Montreal of a catalytic cracking plant, the first to be built in Canada.

This great expansion of manufacturing capacity will bring many advantages to Canada. The base of the national economy will be substantially broadened, and the country can now produce many goods which previously had to be imported. In particular, the dependence upon imports from the United States has been reduced and the capacity to sell to that country has been increased, both of which developments serve to ease the dollar exchange problem.

In spite of all this, however, it would be unwise to ignore the fact that several potential problems of serious dimensions still exist. When the pent-up demand for durable goods that was created by wartime shortages has been satisfied, these industries in Canada will have excess capacity. To find export markets to absorb this capacity may not be easy, because many foreign countries may even by then still find it necessary to restrict imports for the purpose of conserving foreign exchange. Furthermore, manufacturing industry in the United States may to a large extent have satiated its own market and may be a keen competitor for whatever foreign markets are available. The June 1948 issue of the *Monthly Review of the Bank of Nova Scotia* summed up these problems as follows:

> " In conclusion, this country has been fortunate in its ability to modernise and expand its industrial plant and thus to add to the efficiency and to the scale of its production. But it remains obvious that sustained prosperity depends heavily on more settled international conditions and on multilateral trade. Though capacity to export to the United States has been increased and though a number of products formerly imported from that country are now being produced in volume in Canada, overseas markets are still of vital importance. This applies not only to some of Canada's major primary commodities, such as foodstuffs, but also to a number of manufactured goods the output of which has been raised so much by war and postward demands."

TABLE I

CONSUMPTION OF MANUFACTURED PRODUCTS, 1928–1945

Year	Value of Products Manufactured	Manufactured and Partly Manufactured Goods[1]		Value of Manufactured Products Available for Consumption
		Imports Value of Net	Value of Domestic Exports	
	$	$	$	$
1928	3,582,345,302	954,387,551	698,376,615	3,838,356,238
1929	3,883,446,116	939,130,201	686,876,071	4,135,700,246
1930	3,280,236,603	675,828,233	490,108,470	3,465,956,366
1931	2,555,126,448	423,519,849	347,456,198	2,631,190,099
1932	1,980,471,543	281,855,757	267,765,614	1,994,561,686
1933	1,954,075,785	298,068,344	365,232,113	1,886,912,016
1934	2,393,692,729	357,320,284	419,094,297	2,331,918,716
1935	2,653,911,209	385,597,041	582,041,141	2,457,467,109
1936	3,002,403,814	468,455,981	676,890,803	2,793,968,992
1937	3,625,459,500	566,876,483	781,099,407	3,411,236,576
1938	3,337,681,366	472,193,253	587,758,795	3,222,115,824
1939	3,474,783,528	542,364,930	646,853,938	3,370,294,520
1940	4,529,173,316	807,636,948	913,049,979	4,423,760,285
1941	6,076,308,124	1,123,994,913	1,292,855,603	5,907,447,434
1942	7,553,794,972	1,283,884,068	2,056,368,079	6,781,310,961
1943	8,732,860,999	1,305,838,746	2,444,862,298	7,593,837,447
1944	9,073,692,519	1,302,413,996	2,668,575,781	7,707,530,734
1945	8,250,368,866	1,117,544,874	2,352,441,796	7,015,471,944

[1] Imports and exports of manufactured and partly manufactured goods for the years 1928 to 1938 are for the fiscal years ended Mar. 31 of the following years, while for 1939 to 1945 they are for the calendar year. Net imports are total imports less foreign products re-exported.

TABLE II

THE MANUFACTURING INDUSTRIES OF CANADA

Principal Statistics of the Forty Leading Industries of Canada, 1946

Industries	*Establish-ments*	*Employees*	*Salaries and Wages*	*Cost of Materials*	*Net Value of Products*	*Gross Value of Products*
	No.	*No.*	MILLION DOLLARS			
1. Pulp and paper	113	44,967	101	223	258	527
2. Slaughtering and meat packing	147	22,536	40	408	64	475
3. Non-ferrous metal smelting and refining ..	15	14,546	30	212	69	304
4. Sawmills	6,001	49,352	63	156	129	287
5. Flour and feed mills	974	8,036	12	224	34	260
6. Butter and cheese	2,161	19,659	28	177	52	234
7. Electrical apparatus and supplies	266	43,998	74	101	129	234
8. Petroleum products	43	7,145	14	155	57	223
9. Automobiles	9	21,647	43	135	55	193
10. Clothing, women's factory	1,108	29,963	44	91	82	174
11. Railway rolling stock	37	28,553	57	83	74	162
12. Rubber goods	60	22,055	37	62	93	159
13. Primary iron and steel	59	24,196	50	68	71	153
14. Clothing, men's factory	537	27,822	38	83	69	152
15. Bread and other bakery products	2,864	30,453	42	70	72	148
16. Machinery	299	27,003	50	50	93	145
17. Fruit and vegetable preparations	513	16,373	19	83	50	136
18. Sheet metal products	230	16,858	27	62	51	115
19. Miscellaneous foods, coffee, tea, etc. ..	286	6,893	9	78	30	110
20. Cotton yarn and cloth	41	20,662	29	62	44	109
21. Breweries	61	8,644	17	23	84	109
22. Hosiery and knitted goods	247	24,941	30	47	56	105
23. Printing and publishing	775	21,462	39	24	78	104
24. Fish curing and packing	586	11,327	13	68	31	100
25. Boots and shoes, leather	294	22,334	29	52	43	96
26. Automobile supplies	124	15,348	27	43	48	93
27. Shipbuilding	79	20,246	40	25	64	91
28. Biscuits, confectionery, cocoa, etc.	237	13,043	16	43	41	86
29. Feeds, stock and poultry	235	3,971	6	68	14	83
30. Castings, iron	219	16,925	31	27	52	82
31. Tobacco, cigars and cigarettes	78	9,532	12	45	36	81
32. Planing mills, sash and door factories ..	1,078	14,012	19	47	31	79
33. Printing and bookbinding	1,406	19,376	30	29	48	78
34. Furniture	824	19,217	28	34	42	78
35. Boxes and bags, paper	160	11,975	16	41	32	74
36. Hardware, tools and cutlery	276	15,868	27	22	48	73
37. Brass and copper products	162	10,252	18	39	30	72
38. Distilleries	18	4,075	7	21	44	67
39. Medicinal and pharmaceutical preparations ..	201	7,670	12	23	43	67
40. Silk and artificial silk goods	36	13,100	18	24	39	65
TOTAL ALL INDUSTRIES ..	31,249	1,058,156	1,740	4,358	3,467	8,035
PERCENTAGE OF LEADING INDUSTRIES TO ALL INDUSTRIES ..	73·2	72·4	72·7	76·8	72·2	74·7

SOURCE: Dominion Bureau of Statistics.

TABLE III

ESTIMATED CAPITAL INVESTMENT OUTLAYS FOR CONSTRUCTION OF PLANT AND PURCHASES OF MACHINERY AND EQUIPMENT

Millions of Dollars	1945	1946	1947	1948[1]	1948[6]
ALL MANUFACTURING	171·2	299·7	513·1[2]	554·1[2]	594·0
Construction	78·5	110·1	172·2	172·8	190·0
Machinery and Equipment	92·7	189·6	294·9	381·3	404·0
Wood and Paper Products	41·3	79·4	121·9	136·3	122·8
Construction	20·0	35·0	38·1	36·8	36·3
Machinery and Equipment	21·3	44·4	83·8	99·5	86·5
Iron and its Products	42·1	63·5	72·8	79·5	74·0
Construction	15·9	17·8	24·5	30·3	28·8
Machinery and Equipment	26·2	45·7	48·3	49·2	45·2
Vegetable Products	28·9	50·3	80·3	77·6	93·6
Construction	15·6	21·5	31·4	29·7	33·3
Machinery and Equipment	13·3	28·8	48·9	47·9	60·3
Non-metallic Mineral Products	8·9	22·8	49·9	71·2	68·5
Construction	4·8	8·8	32·3	39·3	38·6
Machinery and Equipment	4·1	14·0	17·6	31·9	29·9
Textiles	15·3	27·5	48·0	44·1	60·5
Construction	5·4	6·6	12·9	7·7	10·9
Machinery and Equipment	9·9	20·9	35·1	36·4	49·6
Chemicals	10·3	16·7	39·3	41·9	57·7
Construction	5·3	7·7	14·1	12·2	20·9
Machinery and Equipment	5·0	9·0	25·2	29·7	36·8
Non-ferrous Metal Products	11·7	22·5	22·5	24·5	30·0
Construction	5·6	5·5	8·1	6·2	10·3
Machinery and Equipment	6·1	17·0	14·4	18·3	19·7
Animal Products	10·4	13·2	23·0	20·2	24·7
Construction	4·9	5·4	7·5	6·9	7·8
Machinery and Equipment	5·5	7·8	15·5	13·3	16·9
ALL UTILITIES	117·4	216·8	372·0[3]	476·5[3]	528·0
Construction	62·9	93·3	142·2	193·2	214·0
Machinery and Equipment	54·5	123·5	224·8	283·3	314·0
Electric Power	26·9	57·1	127·1	181·5	203·5
Construction	22·8	29·2	66·6	92·2	107·8
Machinery and Equipment	4·1	27·9	60·5	89·3	95·7
Telephones	23·0	44·3	81·3	105·8	106·0
Construction	12·0	19·3	35·3	45·7	46·9
Machinery and Equipment	11·0	25·0	46·0	60·1	59·1
Steam Railways and Telegraphs	50·3	48·0	76·1	111·7	143·5
Construction	23·6	27·7	26·4	33·3	35·8
Machinery and Equipment	26·7	20·3	49·7	78·4	107·7
AGRICULTURE[4]	[5]	[5]	267·3	314·8	315·5
Construction	[5]	[5]	37·8	50·3	51·0
Machinery and Equipment			229·5	264·5	264·5
MINING	14·9	13·6	66·3	76·6	91·9
Construction	9·3	5·6	30·6	39·4	44·5
Machinery and Equipment	5·6	8·0	35·7	37·2	47·4
WOODS OPERATIONS	15·5	20·9	23·1	20·6	20·2
Construction	8·8	10·4	9·6	9·4	8·7
Machinery and Equipment	6·7	10·5	13·5	11·2	11·5

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[1] Forecast of expenditure during 1948 made at the beginning of the year.

[2] An additional $46 millions in 1947 and $50 millions in 1948 estimated for "capital items (machinery and equipment) charged to operating expenses has been added." Similar estimates for 1945 and 1946 not available.

[3] An additional $5 millions in each of 1947 and 1948 estimated for capital items charged to operating expenses has been added.

[4] Includes Fishing and Trapping.

[5] Not available.

[6] Mid-year revised forecast.

SOURCE: Department of Reconstruction and Supply.

TABLE IV
SUMMARY STATISTICS OF MANUFACTURES, 1917 TO 1946

Year	*Establishments*	*Capital*	*Employees*	*Salaries and Wages*	*Cost of Materials*	*Net Value*[2] *of Products*	*Gross Value of Products*
	No.	Million Dollars	*No.*	Million Dollars			
1917 ..	21,845	2,333	606,523	497	1,539	1,281	2,820
1918 ..	21,777	2,518	602,179	567	1,827	1,399	3,227
1919 ..	22,083	2,670	594,066	601	1,779	1,442	3,221
1920 ..	22,532	2,923	598,893	717	2,085	1,621	3,706
1921 ..	20,848	2,697	438,555	497	1,365	1,123	2,488
1922 ..	21,016	2,667	456,256	489	1,272	1,103	2,375
1923 ..	21,080	2,788	506,203	549	1,456	1,206	2,662
1924 ..	20,709	2,895	487,610	534	1,422	1,075	2,570
1925 ..	20,981	3,065	522,924[1]	569	1,571	1,167	2,816
1926 ..	21,301	3,208	559,161[1]	625	1,712	1,305	3,100
1927 ..	21,501	3,454	595,052[1]	662	1,741	1,427	3,257
1928 ..	21,973	3,804	631,429[1]	721	1,894	1,597	3,582
1929 ..	22,216	4,004	666,531[1]	777	2,029	1,755	3,883
1930 ..	22,618	4,041	614,696[1]	697	1,664	1,522	3,280
1931 ..	23,083	3,705	528,640	587	1,221	1,252	2,555
1932 ..	23,102	3,380	468,833	473	954	955	1,980
1933 ..	23,780	3,279	468,658	436	967	919	1,954
1934 ..	24,209	3,249	519,812	503	1,229	1,087	2,393
1935 ..	24,034	3,216	556,664	559	1,419	1,153	2,653
1936 ..	24,202	3,271	594,359	612	1,624	1,289	3,002
1937 ..	24,834	3,465	660,451	721	2,006	1,508	3,625
1938 ..	25,200	3,485	642,016	705	1,807	1,428	3,337
1939 ..	24,805	3,647	658,114	737	1,836	1,531	3,474
1940 ..	25,513	4,095	762,244	920	2,449	1,942	4,529
1941 ..	26,293	4,905	961,178	1,264	3,296	2,605	6,076
1942 ..	27,862	5,488	1,152,091	1,682	4,037	3,309	7,553
1943 ..	27,652	6,317	1,241,068	1,987	4,690	3,816	8,733
1944 ..	28,483	Not collected	1,222,882	2,029	4,832	4,016	9,074
1945 ..	29,050	" "	1,119,372	1,846	4,474	3,564	8,250
1946 ..	31,249	" "	1,058,156	1,740	4,358	3,467	8,035

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[1] A change in the method of computing the number of wage-earners in the years 1925 to 1930 increased the number somewhat over that which the method otherwise used would have given. In 1931, however, the method in force prior to 1925 was re-adopted. The figures for 1931 and later years are, therefore, comparable with those for 1924 and earlier years. [2] In accordance with a resolution passed by the Conference of British Commonwealth Statisticians, 1935, the net value of production is now computed by subtracting the cost of fuel and electricity as well as the cost of materials from the gross value of the products. The figures for 1924 and later years have, therefore, been revised in accordance with this resolution. The revision could not be carried farther back as statistics for the cost of electricity are not available for years prior to 1924.

Source: Dominion Bureau of Statistics.

TABLE V

SUMMARY STATISTICS OF MANUFACTURES, BY PROVINCES, SIGNIFICANT YEARS, 1943-45

Province and Year	*Establishments*	*Capital*	*Employees*	*Salaries and Wages*	*Cost of Materials*	*Net Value of Products*	*Gross Value of Products*
	No.	$	*No.*	$	$	$	$
PRINCE EDWARD ISLAND—							
1943	230	3,881,832	1,552	1,298,112	6,432,079	3,021,848	9,577,446
1944	241	[1]	1,786	1,694,763	6,993,510	3,570,835	10,713,644
1945	234	[1]	1,851	1,679,212	8,242,949	3,178,434	11,592,753
NOVA SCOTIA—							
1943	1,278	179,363,703	37,445	55,205,712	96,551,817	84,909,686	188,463,088
1944	1,281	[1]	37,812	59,940,411	103,463,123	93,376,638	204,421,664
1945	1,297	[1]	33,423	51,703,245	107,860,539	84,358,189	199,775,177
NEW BRUNSWICK—							
1943	862	111,287,910	23,225	30,451,181	76,711,513	58,956,676	140,934,879
1944	937	[1]	23,164	32,345,080	83,993,599	62,258,478	152,106,577
1945	889	[1]	22,503	32,408,048	87,235,347	63,380,075	156,623,378
QUEBEC—							
1943	9,372	2,230,620,386	437,247	658,323,620	1,483,627,797	1,280,097,615	2,852,191,853
1944	9,656	[1]	424,115	668,156,053	1,494,253,053	1,350,519,134	2,929,685,183
1945	10,038	[1]	384,031	607,473,443	1,307,534,193	1,149,390,919	2,531,903,830
ONTARIO—							
1943	10,587	2,994,953,988	570,017	956,399,212	2,278,871,511	1,844,651,587	4,221,101,063
1944	10,731	[1]	564,392	975,038,060	2,310,347,858	1,930,043,913	4,339,797,784
1945	10,869	[1]	518,056	882,483,387	2,148,290,603	1,720,938,199	3,965,069,021
MANITOBA—							
1943	1,245	173,752,507	37,003	53,841,825	200,464,756	99,146,670	304,867,912
1944	1,290	[1]	40,937	62,758,081	226,234,925	120,339,926	352,334,594
1945	1,302	[1]	38,367	59,814,109	216,114,576	117,775,126	339,821,283
SASKATCHEWAN—							
1943	976	60,674,093	11,683	16,445,866	111,193,185	37,895,459	152,123,360
1944	1,054	[1]	12,361	17,703,103	131,215,017	40,833,333	175,349,234
1945	926	[1]	11,617	16,905,606	126,279,202	38,275,127	167,688,133
ALBERTA—							
1943	1,133	111,682,419	20,613	29,494,369	142,057,051	65,796,813	211,159,142
1944	1,165	[1]	22,186	33,227,729	172,082,537	77,415,753	252,949,894
1945	1,157	[1]	21,486	32,760,326	166,198,136	78,547,626	248,287,504
BRITISH COLUMBIA							
1943	1,961	450,360,048	102,221	185,711,773	294,445,005	341,699,478	652,046,313
1944	2,116	[1]	96,062	178,639,118	303,560,016	337,137,197	655,844,689
1945	2,326	[1]	87,974	160,419,133	305,759,836	307,954,519	628,903,124
YUKON AND N.W.T.—							
1943	8	589,841	62	120,714	138,369	237,709	395,943
1944	12	[1]	67	118,972	189,718	280,803	489,256
1945	12	[1]	64	126,940	153,466	517,685	704,663

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[1] Information not collected.

TABLE VI

SUMMARY STATISTICS OF MANUFACTURES, BY INDUSTRIAL GROUPS, SIGNIFICANT YEARS, 1943-45

Industrial Group and Year	*Establishments*	*Capital*	*Employees*	*Salaries and Wages*	*Cost of Materials*	*Net Value of Products*	*Gross Value of Products*
	No.	$	*No.*	$	$	$	$
VEGETABLE PRODUCTS—							
1943	5,913	684,292,303	117,243	157,733,379	635,042,582	410,340,183	1,062,561,932
1944	5,941	[1]	130,679	183,943,948	763,606,750	485,551,491	1,270,518,297
1945	5,862	[1]	135,311	196,010,688	802,367,469	529,112,219	1,352,986,147
ANIMAL PRODUCTS—							
1943	4,380	324,811,863	88,037	114,467,581	750,435,541	211,149,715	971,190,128
1944	4,388	[1]	94,195	129,215,389	835,586,247	246,064,720	1,092,015,647
1945	4,470	[1]	98,267	138,405,263	839,885,434	261,069,677	1,111,929,735
TEXTILES AND TEXTILE PRODUCTS—							
1943	2,384	455,056,029	157,987	191,305,628	446,136,675	334,242,717	790,659,927
1944	2,481	[1]	153,122	195,805,681	419,988,642	351,186,488	781,771,688
1945	2,740	[1]	158,148	207,629,471	429,208,436	367,980,705	807,722,241
WOOD AND PAPER PRODUCTS—							
1943	9,974	1,103,984,216	183,865	264,844,792	447,399,954	508,835,982	1,001,563,243
1944	10,452	[1]	189,674	284,436,559	497,656,158	550,826,986	1,093,725,822
1945	10,653	[1]	199,373	306,179,416	551,143,890	586,057,023	1,184,650,720
IRON AND ITS PRODUCTS—							
1943	2,044	1,852,506,052	435,744	833,383,684	1,131,858,008	1,396,768,112	2,575,976,547
1944	2,192	[1]	411,944	818,452,454	1,104,083,922	1,390,703,087	2,540,992,974
1945	2,188	[1]	321,719	637,335,990	887,425,621	1,046,097,484	1,975,310,083
NON-FERROUS METAL PRODUCTS—							
1943	597	674,802,402	109,522	186,874,396	615,283,895	369,005,912	1,034,390,379
1944	635	[1]	104,314	182,909,292	549,317,062	399,498,519	992,345,975
1945	683	[1]	88,350	158,358,737	429,913,071	316,572,975	779,384,900
NON-METALLIC MINERAL PRODUCTS—							
1943	747	351,164,254	30,994	53,282,340	215,139,225	146,460,170	388,713,942
1944	748	[1]	31,590	56,130,338	234,714,319	152,525,053	416,268,879
1945	789	[1]	32,525	57,193,679	231,341,920	145,197,043	405,736,477
CHEMICALS AND ALLIED PRODUCTS—							
1943	945	759,864,951	92,288	146,677,194	368,111,343	379,453,873	765,217,887
1944	981	[1]	81,822	137,422,977	360,412,749	355,260,598	733,569,232
1945	973	[1]	60,723	106,017,985	212,197,636	249,701,603	478,532,689
MISCELLANEOUS INDUSTRIES—							
1943	668	110,684,657	25,388	38,723,390	81,085,860	60,156,877	142,587,014
1944	665	[1]	25,542	41,304,732	66,967,507	84,159,068	152,484,005
1945	692	[1]	24,956	38,642,220	90,185,370	62,527,170	154,115,874

[1] Information not collected.

TABLE VII.—PRINCIPAL STATISTICS OF THE MANUFACTURING INDUSTRIES OF CANADA, CLASSIFIED IN DETAIL FOR 1944

Purpose Heading	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	$	$	$	$
FOOD	8,435	136,747	183,795,031	1,271,356,037	408,862,849	1,702,330,839
Breadstuffs	4,287	51,139	66,417,828	307,841,619	142,471,000	458,155,998
Fish	535	9,664	10,327,695	45,906,542	22,066,801	68,882,879
Fruit and vegetable preparations	458	15,368	16,411,988	63,223,982	42,302,840	107,335,254
Meats	226	24,349	39,336,208	461,804,219	82,877,140	547,560,545
Milk products	2,418	21,677	29,516,005	209,889,807	59,280,875	273,998,131
Oils and fats	8	117	216,711	538,711	410,974	1,015,317
Sugar	11	2,590	4,576,060	48,033,547	14,364,944	63,874,868
Miscellaneous	492	11,843	16,992,536	134,117,610	45,088,275	181,507,847
DRINK AND TOBACCO	635	28,566	44,140,376	118,406,602	159,387,626	281,731,695
Beverages, alcoholic	78	10,305	19,565,573	38,554,779	87,912,695	129,211,351
Beverages, non-alcoholic	475	6,481	10,033,946	19,742,497	32,961,862	53,547,792
Tobacco	82	11,780	14,540,857	60,109,326	38,513,069	98,972,552
CLOTHING	2,713	117,056	146,623,855	284,018,437	242,324,720	529,230,834
Boots and shoes, leather	228	18,638	22,636,194	42,657,644	33,247,109	76,297,886
Fur goods	535	6,190	9,430,191	28,076,572	15,728,926	43,985,177
Garments and personal furnishings	1,461	59,435	77,202,237	154,361,193	130,838,220	286,064,470
Gloves and mittens	83	3,474	3,389,806	6,070,925	5,379,819	11,499,596
Hats and caps	193	5,787	7,601,651	11,397,689	11,879,077	23,451,239
Knitted goods	200	22,939	25,535,277	39,132,779	43,882,156	84,217,935
Waterproofs	13	593	828,499	2,321,635	1,369,413	3,714,531
PERSONAL UTILITIES	758	18,922	26,130,683	54,417,448	59,949,718	115,502,040
Jewellery and time-pieces	143	4,813	7,304,277	13,884,974	13,282,712	27,348,163
Recreational supplies	109	2,927	3,401,397	4,119,763	7,347,858	11,605,148
Personal utilities	506	11,182	15,425,009	36,412,711	39,319,148	76,548,729
HOUSE FURNISHINGS	908	38,940	58,426,100	83,231,172	100,932,323	187,175,054
BOOKS AND STATIONERY	2,468	47,319	76,542,070	75,882,848	141,795,037	219,966,613
VEHICLES AND VESSELS	413	222,604	454,449,952	637,341,589	771,461,866	1,425,858,778
PRODUCERS MATERIALS	8,990	343,035	567,699,762	1,369,160,212	1,142,646,292	2,646,303,770
Farm material	26	2,226	4,610,420	17,690,683	12,335,270	31,188,945
Manufacturers materials	1,244	202,766	355,265,433	925,635,866	743,755,333	1,785,424,710
Building materials	7,204	113,770	176,106,257	345,948,484	327,089,255	687,661,669
General materials	516	24,273	31,717,652	79,885,179	59,466,434	142,028,446
INDUSTRIAL EQUIPMENT	2,889	216,279	385,434,071	697,897,961	781,329,304	1,512,623,216
Farming equipment	49	14,124	25,543,041	25,280,473	35,146,013	61,520,411
Manufacturing equipment	275	27,411	51,252,544	51,438,181	96,354,344	149,550,350
Trading equipment	142	1,969	3,184,715	1,798,435	6,825,736	9,011,766
Service equipment	370	19,993	35,103,322	60,655,039	82,030,274	143,508,141
Light heat and power equipment	376	65,530	115,632,169	326,180,193	252,771,276	597,478,469
General equipment	1,677	87,252	154,718,280	232,545,640	308,201,661	551,554,079
Miscellaneous	274	53,414	86,379,470	240,621,050	207,086,275	452,969,680

TABLE

STATISTICS OF THE ESTABLISHMENTS, EMPLOYEES, SALARIES AND WAGES POWER, FUEL,

Province, Industry and Group	*Establishments*	*Employees on Salary*			*Employees on*	
		Male	*Female*	*Salaries*	*Male*	*Female*
	No.	*No.*	*No.*	*$*	*No.*	*No.*
Province						
Prince Edward Island	241	274	90	340,735	956	466
Nova Scotia	1,281	3,357	1,393	8,038,033	28,059	5,003
New Brunswick	937	2,393	910	5,927,148	15,829	4,032
Quebec	9,656	43,613	19,537	136,345,080	254,412	106,553
Ontario	10,731	58,832	35,547	214,556,603	330,502	139,511
Manitoba	1,290	4,504	2,153	12,970,760	24,737	9,543
Saskatchewan	1,054	2,169	885	4,629,279	7,562	1,745
Alberta	1,165	2,855	1,272	7,292,403	13,912	4,147
British Columbia	2,116	8,840	3,912	27,933,075	68,622	14,688
Yukon and Northwest Territories	12	21	1	32,478	44	1
CANADA	28,483	126,858	65,700	418,065,594	744,635	285,689
Industrial Group						
Vegetable products	5,941	16,912	7,701	49,702,771	65,788	40,278
Animal products	4,388	11,588	5,026	31,018,679	53,797	23,784
Textiles and textile products	2,481	10,924	6,851	44,529,327	51,284	84,063
Wood and paper products	10,452	26,744	10,239	70,547,540	128,117	24,574
Iron and its products	2,192	33,745	19,657	123,083,083	308,747	49,795
Non-ferrous metal products	635	10,643	6,469	39,496,337	61,300	25,902
Non-metallic mineral products	748	3,840	1,560	12,458,871	22,964	3,226
Chemicals and allied products	981	8,742	5,971	34,080,087	41,045	26,064
Miscellaneous industries	665	3,720	2,226	13,148,899	11,593	8,003
1.—VEGETABLE PRODUCTS—						
Aerated and mineral waters	445	1,055	435	3,154,011	3,688	621
Biscuits, confectionery, cocoa, etc.	219	1,801	793	5,969,940	4,244	7,422
Bread and other bakery products	2,917	3,209	1,212	6,531,441	16,090	7,019
Breweries	61	1,241	327	4,410,331	4,952	605
Distilleries	17	412	207	1,777,390	1,567	994
Flour and feed mills	1,087	1,653	553	3,341,467	4,768	315
Foods, breakfast	29	115	69	376,579	455	287
Foods, stock and poultry	206	636	296	1,667,503	2,182	125
Foods, miscellaneous	269	1,339	682	4,191,543	1,855	3,009
Fruit and vegetable preparations	458	1,204	637	3,432,826	6,622	6,905
Ice cream cones	6	12	10	35,617	32	62
Macaroni, vermicelli, etc.	16	51	25	166,914	210	208
Malt and malt products	11	58	31	249,130	362	8
Rubber goods, including rubber footwear	56	2,240	1,285	7,793,127	12,358	5,538
Starch and glucose	8	114	84	443,316	659	152
Sugar refineries	11	294	116	1,078,829	1,787	393
Tobacco, cigars and cigarettes	69	1,164	825	3,978,152	2,634	5,964
Tobacco processing	13	147	32	479,114	520	494
Vegetable oil mills	11	49	26	153,759	380	7
Wine	30	104	51	408,465	377	150
All other industries	2	14	5	63,317	46	Nil
TOTALS, VEGETABLE PRODUCTS	5,941	16,912	7,701	49,702,771	65,788	40,278
2.—ANIMAL PRODUCTS—						
Animal oils and fats	8	18	9	60,162	90	Nil
Belting, leather	18	51	28	181,759	156	35
Boot and shoe findings, leather	21	52	21	164,552	448	265
Boots and shoes, leather	228	1,497	634	4,947,699	8,968	7,539
Butter and cheese	2,282	3,440	1,618	6,550,880	11,935	1,629
Cheese, processed	22	120	76	363,140	332	587
Condensed milk	26	137	75	413,443	958	139
Dairy products, other	88	139	75	349,761	320	97
Fish curing and packing	535	985	233	1,861,835	6,130	2,316
Fur dressing and dyeing	18	115	45	372,914	754	315
Fur goods	517	945	376	2,735,273	1,915	1,725
Gloves and mittens, leather	67	203	90	548,850	824	1,723
Hair goods, animal and human	16	26	10	104,910	156	81
Leather tanneries	75	348	133	1,563,094	3,508	483
Miscellaneous leather goods	241	556	220	1,629,879	1,970	2,173
Sausage and sausage casings	73	85	24	176,643	283	90
Slaughtering and meat packing	153	2,871	1,359	8,993,885	15,050	4,587
TOTALS, ANIMAL PRODUCTS	4,388	11,588	5,026	31,018,679	53,797	23,784

VIII

MATERIALS, AND VALUES OF PRODUCTS OF CANADIAN MANUFACTURING INDUSTRIES, 1944.

Wages	*Total Employees*	*Total Salaries and Wages*	*Cost of Fuel and Electricity*	*Cost of Materials*	*Value of Products*	
Wages					*Net*	*Gross*
$	No.	$	$	$	$	$
1,354,028	1,786	1,694,763	149,299	6,993,510	3,570,835	10,713,644
51,902,378	37,812	59,940,411	7,581,903	103,463,123	93,376,638	204,421,664
26,417,932	23,164	32,345,080	5,854,500	83,993,599	62,258,478	152,106,577
531,810,973	424,115	668,156,053	84,912,996	1,494,253,053	1,350,519,134	2,929,685,183
760,481,457	564,392	975,038,060	99,406,013	2,310,347,858	1,930,043,913	4,339,797,784
49,787,321	40,937	62,758,081	5,759,743	226,234,925	120,339,926	352,334,594
13,073,824	12,361	17,703,103	3,300,884	131,215,017	40,833,333	175,349,234
25,935,326	22,186	33,227,729	3,451,604	172,082,537	77,415,753	252,949,894
150,706,043	96,062	178,639,118	15,147,476	303,560,016	337,137,197	655,844 689
86,494	67	118,972	18,735	189,718	280,803	489,256
1,611,555,776	1,222,882	2,029,621,370	225,583,153	4,832,333,356	4,015,776,010	9,073,692,519
134,241,177	130,679	183,943,948	21,360,056	763,606,750	485,551,491	1,270,518,297
98,196,710	94,195	129,215,389	10,364,680	835,586,247	246,064,720	1,092,015,647
151,276,354	153,122	195,805,681	10,596,558	419,988,642	351,186,488	781,771,688
213,889,019	189,674	284,436,559	45,242,678	497,656,158	550,826,986	1,093,725,822
695,369,371	411,944	818,452,454	46,205,965	1,104,083,922	1,390,703,087	2,540,992,974
143,412,955	104,314	182,909,292	43,530,394	549,317,062	399,498,519	992,345,975
43,671,467	31,590	56,130,338	29,029,507	234,714,319	152,525,053	416,268,879
103,342,890	81,822	137,422,977	17,895,885	360,412,749	355,260,598	733,569,232
28,155,833	25,542	41,304,732	1,357,430	66,967,507	84,159,068	152,484,005
5,822,235	5,799	8,976,246	764,707	16,667,880	29,761,126	47,193,713
11,355,637	14,260	17,325,577	1,103,149	42,475,278	42,433,072	86,011,499
28,632,695	27,530	35,164,136	3,961,643	59,824,616	61,474,839	125,261,098
9,778,202	7,125	14,188,533	1,351,455	18,021,526	63,118,812	82,491,793
3,599,650	3,180	5,377,040	1,392,422	20,533,253	24,793,883	46,719,558
7,170,508	7,289	10,511,975	1,892,784	187,116,957	26,780,541	215,790,282
1,157,943	926	1,534,522	242,057	6,048,985	5,939,799	12,230,841
3,493,226	3,239	5,160,729	571,879	55,812,112	11,113,161	67,497,152
4,702,370	6,885	8,893,913	560,962	68,580,203	28,293,696	97,434,861
12,979,162	15,368	16,411,988	1,808,432	63,223,982	42,302,840	107,335,254
106,274	116	141,891	29,940	274,375	448,765	753,080
493,813	494	660,727	90,702	1,418,347	1,095,916	2,604,965
696,098	459	945,228	518,058	8,472,119	3,910,271	12,900,448
28,185,590	21,421	35,978,717	4,509,841	82,187,888	82,813,307	169,511,036
1,192,435	1,009	1,635,751	516,995	8,878,997	2,393,758	11,789,750
3,497,231	2,590	4,576,060	1,476,377	48,033,547	14,364,944	63,874,868
9,127,644	10,587	13,105,796	274,262	36,864,416	34,303,711	71,442,389
955,947	1,193	1,435,061	75,895	23,244,910	4,209,358	27,530,163
574,827	462	728,586	134,724	10,641,800	2,411,159	13,187,683
649,235	682	1,057,700	78,726	3,074,617	3,200,736	6,354,079
70,455	65	133,772	5,046	2,210,942	387,797	2,603,785
134,241,177	130,679	183,943,948	21,360,056	763,606,750	485,551,491	1,270,518,297
156,549	117	216,711	65,632	538,711	410,974	1,015,317
246,421	270	428,180	16,944	1,101,605	719,798	1,838,347
699,557	786	864,109	113,253	1,399,523	1,475,092	2,987,868
17,688,495	18,638	22,636,194	393,133	42,657,644	33,247,109	76,297,886
18,807,590	18,622	25,358,470	3,816,374	168,490,247	45,836,735	218,143,356
920,541	1,115	1,283,681	72,102	14,833,893	4,764,231	19,670,226
1,595,136	1,309	2,008,579	825,502	23,807,162	6,030,508	30,663,172
515,514	631	865,275	113,471	2 758,505	2,649,401	5,521,377
8,465,860	9,664	10,327,695	909,536	45,906,542	22,066,801	68,882,879
1,308,509	1,229	1,681,423	64,983	646,281	2,364,204	3,075,468
5,013,495	4,961	7,748,768	114,696	27,430,291	13,364,722	40,909,709
2,230,949	2,840	2,779,799	36,967	5,003,352	4,357,839	9,398,158
233,751	273	338,661	8,550	613,097	528,054	1,149,701
6,022,322	4,472	7,585,416	828,100	28,233,845	15,949,343	45,011,288
4,126,341	4,919	5,756,220	106,251	10,361,330	9,422,769	19,890,350
461,776	482	638,419	67,836	3,319,837	1,138,772	4,526,445
29,703,904	23,867	38,697,789	2,811,350	458,484,382	81,738,368	543,034,100
98,196,710	94,195	129,215,389	10,364,680	835,586,247	246,064,720	1,092,015,647

TABLE

STATISTICS OF THE ESTABLISHMENTS, EMPLOYEES, SALARIES AND WAGES POWER, FUEL,

Province, Industry and Group	*Establish-ments*	*Employees on Salary*			*Employees on*	
		Male	*Female*	*Salaries*	*Male*	*Female*
	No.	*No.*	*No.*	$	*No.*	*No.*
3.—Textiles and Textile Products—						
Awnings, tents and sails	79	188	77	552,578	570	851
Bags, cotton and jute	32	114	60	501,100	316	997
Batting and wadding	4	40	9	150,731	177	136
Carpets, mats and rugs	16	118	68	466,044	460	412
Clothing, men's, factory	418	2,439	1,263	9,610,626	6,508	16,806
Clothing, women's, factory	835	2,451	1,524	9,717,205	4,833	17,002
Clothing contractors, men's	117	192	33	442,845	930	1,895
Clothing contractors, women's	63	87	21	216,960	201	900
Cordage, rope and twine	10	88	54	396,301	866	733
Corsets	28	173	295	1,027,851	155	1,727
Cotton and wool waste	25	64	32	282,052	189	183
Cotton textiles, miscellaneous	85	195	97	621,934	307	1,264
Cotton thread	7	109	64	401,991	175	557
Cotton yarn and cloth	41	687	522	3,096,019	11,203	9,488
Dyeing and finishing of textiles	40	189	105	798,409	1,027	346
Flax, fibre	42	66	9	123,847	830	23
Gloves and mittens, fabric	16	37	23	134,643	84	490
Hats and caps	165	591	285	2,142,054	1,616	2,631
Hosiery and knitted goods	200	1,152	938	5,044,705	6,199	14,650
Miscellaneous textiles	19	264	163	1,303,977	1,275	1,044
Narrow fabrics, laces, etc.	39	222	194	983,141	722	1,254
Oiled and waterproofed clothing	13	59	30	236,748	156	348
Silk and artificial silk	32	647	465	2,867,044	5,829	4,374
Woollen cloth	75	429	305	2,001,321	4,016	3,611
Woollen goods, miscellaneous	36	135	88	747,531	1,349	453
Woollen yarn	42	184	125	647,653	1,263	1,819
All other industries	2	4	2	14,017	28	69
Totals, Textiles and Products	2,481	10,924	6,851	44,529,327	51,284	84,063
4.—Wood and Paper Products—						
Beekeepers' and poultrymen's supplies	10	14	11	32,162	44	2
Blueprinting	23	31	18	103,131	94	32
Boat building	113	144	39	286,292	850	63
Boxes and bags, paper	153	814	567	3,320,428	4,018	4,970
Boxes, wooden	165	390	147	991,449	4,568	767
Carriages, wagons and sleighs	55	72	13	101,916	268	1
Coffins and caskets	53	134	42	370,346	788	165
Cooperage	66	82	33	188,500	732	32
Engraving, stereotyping and electrotyping	105	490	256	1,874,460	1,587	661
Excelsior	10	12	9	30,850	95	26
Flooring, hardwood	22	85	44	280,540	1,060	65
Furniture	472	1,278	519	3,853,790	10,475	1,774
Lasts, trees and shoe findings	17	59	42	173,211	387	231
Lithographing	43	383	261	1,728,449	1,475	927
Miscellaneous paper products	173	823	549	3,364,471	2,698	2,685
Miscellaneous wooden products	224	366	171	987,499	2,258	1,003
Planing mills, sash and door factories	836	1,462	424	3,218,535	9,012	461
Printing and bookbinding	1,322	2,764	1,256	7,879,636	7,168	4,454
Printing and publishing	766	5,593	3,313	16,007,556	7,638	1,784
Pulp and paper	104	3,948	1,540	15,617,507	31,148	1,260
Refrigerators	14	31	14	85,185	232	23
Roofing paper, etc.	22	236	146	895,149	772	177
Sawmills	5,506	6,962	537	7,123,598	35,053	964
Trade composition	36	65	36	215,123	266	12
Veneer and plywood	31	217	117	815,807	2,748	1,446
Woodenware	18	34	15	79,478	548	186
Wood turning	64	128	49	297,990	1,044	259
All other industries	29	127	71	624,482	1,091	144
Totals, Wood and Paper Products	10,452	26,744	10,239	70,547,540	128,117	24,574
5.—Iron and its Products—						
Agricultural implements	39	1,280	726	4,237,401	10,222	1,825
Aircraft	45	8,402	5,571	29,957,380	48,391	17,208
Automobiles	5	2,112	1,221	8,893,269	18,869	297
Automobile supplies	104	1,437	1,013	5,638,778	13,808	4,108
Bicycles	8	78	37	237,997	459	101
Boilers, tanks and plate work	37	682	291	2,350,802	3,686	148
Bridge and structural steel	22	861	354	3,430,862	7,223	346
Castings, iron	196	1,015	562	3,722,871	13,317	665
Hardware, tools and cutlery	242	1,290	1,066	5,637,301	10,898	3,105

VIII
MATERIALS, AND VALUES OF PRODUCTS OF CANADIAN MANUFACTURING INDUSTRIES, 1944.—*cont.*

Wages	*Total Employees*	*Total Salaries and Wages*	*Cost of Fuel and Electricity*	*Cost of Materials*	*Value of Products*	
Wages					*Net*	*Gross*
$	*No.*	$	$	$	$	$
1,518,020	1,686	2,070,598	43,357	6,553,083	3,277,509	9,873,949
1,261,383	1,487	1,762,483	59,836	22,075,033	4,464,136	26,599,005
439,744	362	590,475	46,256	1,829,970	1,052,133	2,928,359
1,209,949	1,058	1,675,993	118,271	2,472,925	2,688,746	5,279,942
25,756,908	27,016	35,367,534	444,985	78,316,230	59,295,540	138,056,755
24,952,153	25,810	34,669,358	311,086	72,815,459	60,839,942	133,966,487
2,937,049	3,050	3,379,894	64,153	207,126	3,975,205	4,246,484
1,117,275	1,209	1,334,235	15,713	57,088	1,764,762	1,837,563
2,240,861	1,741	2,637,162	159,897	8,010,081	5,422,835	13,592,813
1,423,365	2,350	2,451,216	29,120	2,965,290	4,962,771	7,957,181
446,101	468	728,153	59,718	4,110,519	1,460,794	5,631,031
1,383,852	1,863	2,005,786	42,382	5,373,811	3,500,855	8,917,048
692,579	905	1,094,570	92,372	3,381,739	2,401,984	5,876,095
24,769,524	21,900	27,865,543	3,159,409	66,948,167	46,599,735	116,707,311
1,717,603	1,667	2,516,012	547,036	1,266,430	5,137,881	6,951,347
822,733	928	946,580	87,709	Nil	2,859,982	2,947,691
475,364	634	610,007	11,885	1,067,573	1,021,980	2,101,438
4,807,372	5,123	6,949,426	166,971	10,768,833	10,731,478	21,667,282
20,490,572	22,939	25,535,277	1,203,000	39,132,779	43,882,156	84,217,935
3,329,227	2,746	4,633,204	322,126	13,964,166	13,638,748	27,925,040
2,019,854	2,392	3,002,995	107,001	6,129,892	6,529,605	12,766,498
591,751	593	828,499	23,483	2,321,635	1,369,413	3,714,531
12,096,545	11,315	14,963,589	1,879,722	19,824,898	30,662,737	52,367,357
9,062,103	8,361	11,063,424	1,007,676	27,212,376	19,419,427	47,639,479
2,380,588	2,025	3,128,119	260,230	10,329,914	6,443,939	17,034,083
3,244,484	3,391	3,892,137	327,433	12,436,752	7,553,934	20,318,119
89,395	103	103,412	5,731	416,873	228,261	650,865
151,276,354	153,122	195,805,681	10,596,558	419,988,642	351,186,488	781,771,688
41,796	71	73,958	7,225	114,724	299,669	421,618
138,503	175	241,634	11,860	189,728	535,693	737,281
1,249,762	1,096	1,536,054	44,891	1,703,739	2,248,485	3,997,115
9,639,179	10,369	12,959,607	468,991	31,495,057	24,505,466	56,469,514
6,217,723	5,872	7,209,172	258,198	13,239,614	12,465,893	25,963,705
345,004	354	446,920	29,370	511,469	667,036	1,207,875
1,049,217	1,129	1,419,563	65,754	1,723,976	2,421,304	4,211,034
1,009,988	879	1,198,488	63,985	2,955,742	2,087,413	5,107,140
4,390,130	2,994	6,264,590	135,846	2,124,682	9,305,010	11,565,538
123,667	142	154,517	18,671	188,482	256,268	463,421
1,385,648	1,254	1,666,188	92,655	4,061,083	2,781,813	6,935,551
15,727,038	14,046	19,580,828	764,261	20,871,540	29,660,773	51,296,574
626,764	719	799,975	34,444	772,837	1,223,293	2,030,574
3,452,431	3,046	5,180,880	109,022	6,467,020	8,977,503	15,553,545
6,342,441	6,755	9,706,912	492,980	28,541,602	23,039,717	52,074,299
3,794,698	3,798	4,782,197	177,439	5,454,923	7,299,198	12,931,560
11,640,083	11,359	14,858,618	717,495	31,777,429	23,088,337	55,583,261
14,946,082	15,642	22,825,718	613,986	21,010,700	35,298,119	56,922,805
15,614,098	18,328	31,621,654	906,058	17,455,960	63,588,253	81,950,271
60,215,901	37,896	75,833,408	37,358,842	157,995,141	174,492,103	369,846,086
335,302	300	420,487	15,635	447,177	650,966	1,113,778
1,339,567	1,331	2,234,716	324,693	6,942,147	6,536,901	13,803,741
44,392,487	43,516	51,516,085	1,860,648	118,167,020	96,528,955	216,556,623
485,559	379	700,682	18,976	93,156	1,050,742	1,162,874
5,668,343	4,528	6,484,150	311,916	10,407,506	14,027,773	24,747,195
706,560	783	786,038	16,970	563,101	892,294	1,472,365
1,276,200	1,480	1,574,190	66,358	1,682,653	2,256,697	4,005,708
1,734,848	1,433	2,359,330	255,509	10,697,950	4,641,312	15,594,771
213,889,019	189,674	284,436,559	45,242,678	497,656,158	550,826,986	1,093,725,822
21,231,682	14,053	25,469,083	1,086,700	25,165,749	34,846,344	61,098,793
131,097,630	79,572	161,055,010	2,593,792	137,734,065	286,653,701	426,981,558
44,986,713	22,499	53,879,982	2,327,165	234,578,288	87,185,302	324,090,755
33,032,952	20,366	38,671,730	2,171,569	84,155,653	73,868,168	160,195,390
992,812	675	1,230,809	78,271	1,137,323	1,748,595	2,964,189
7,237,675	4,807	9,588,477	538,193	13,205,452	18,523,527	32,267,172
15,979,043	8,784	19,409,905	878,640	23,936,307	33,594,799	58,109,746
25,229,250	15,559	28,952,121	2,468,459	27,810,836	43,688,126	73,967,421
24,153,375	16,359	29,790,676	1,401,587	20,610,853	56,847,740	78,860,180

TABLE

STATISTICS OF THE ESTABLISHMENTS, EMPLOYEES, SALARIES AND WAGES POWER, FUEL,

Province, Industry and Group	*Establishments*	*Employees on Salary*			*Employees on*	
		Male	*Female*	*Salaries*	*Male*	*Female*
	No.	*No.*	*No.*	$	*No.*	*No.*
5—IRON AND ITS PRODUCTS—*cont.*						
Heating and cooking apparatus	71	594	338	1,998,445	5,028	470
Iron and steel products, miscellaneous	170	3,247	2,019	12,214,208	22,752	8,945
Machinery	258	3,297	2,008	11,894,182	19,084	2,303
Machine shops	522	1,132	444	3,378,029	5,840	592
Primary iron and steel	64	1,556	1,008	6,408,337	27,055	1,144
Railway rolling-stock	37	1,786	373	5,583,224	27,293	459
Sheet metal products	194	1,321	832	4,790,036	10,533	4,166
Shipbuilding and repairs	94	3,167	1,452	10,626,142	59,960	2,497
Wire and wire goods	84	488	342	2,083,819	4,329	1,416
TOTALS, IRON AND ITS PRODUCTS	2,192	33,745	19,657	123,083,083	308,747	49,795
6.—NON-FERROUS METAL PRODUCTS—						
Aluminium products	21	462	273	1,819,397	3,656	1,170
Brass and copper products	162	1,295	822	5,235,981	12,169	3,347
Electrical apparatus and supplies	234	5,691	3,828	21,442,886	21,903	17,412
Jewellery, silverware, etc.	139	420	350	1,809,154	2,172	1,644
Miscellaneous non-ferrous metal products	22	90	91	413,894	430	251
Non-ferrous metal smelting and refining	16	2,445	926	7,816,181	19,550	1,006
White metal alloys	41	240	179	958,844	1,420	1,072
TOTALS, NON-FERROUS METAL PRODUCTS	635	10,643	6,469	39,496,337	61,300	25,902
7.—NON-METALLIC MINERAL PRODUCTS—						
Abrasive products	15	233	185	1,131,044	2,135	220
Asbestos products	13	102	41	311,077	636	147
Cement	8	76	16	229,490	1,066	49
Cement products	149	211	55	492,041	913	16
Clay products from domestic clay	110	195	58	594,282	1,786	208
Clay products from imported clay	24	111	64	405,183	782	284
Coke and gas products	34	820	382	2,392,267	3,472	73
Glass products	90	353	212	1,295,192	3,246	1,713
Gypsum products	9	50	18	134,424	462	39
Lime	42	80	22	178,802	713	Nil
Miscellaneous non-metallic mineral products	52	200	92	642,254	1,456	179
Petroleum products	48	1,122	317	3,830,988	5,177	193
Salt	9	87	59	397,113	504	60
Sand-lime brick	3	9	1	26,324	35	1
Stone, monumental and ornamental	142	191	38	398,390	581	44
TOTALS, NON-METALLIC MINERAL PRODUCTS	748	3,840	1,560	12,458,871	22,964	3,226
8.—CHEMICALS AND ALLIED PRODUCTS—						
Acids, alkalies and salts	37	1,031	415	3,604,323	6,026	492
Adhesives	24	115	57	409,140	401	58
Coal tar distillation	10	68	18	230,366	273	19
Fertilisers	26	282	147	1,103,414	1,666	131
Gases, compressed	40	196	215	760,286	598	16
Inks, printing and writing	31	162	80	738,354	293	81
Medicinal and pharmaceutical preparations	201	1,433	1,215	6,204,314	1,940	3,012
Miscellaneous chemical products	228	3,153	2,298	12,017,726	25134	19,852
Paints, pigments and varnishes	97	1,129	687	4,351,329	2,446	559
Polishes and dressings	51	148	100	498,549	231	265
Soaps, washing compounds, etc.	138	677	371	2,475,961	1,405	543
Toilet preparations	93	338	363	1,656,224	359	1,036
Wood distillation	5	10	5	30,101	273	Nil
TOTALS, CHEMICALS AND ALLIED PRODUCTS	981	8,742	5,971	34,080,087	41,045	26,064
9.—MISCELLANEOUS INDUSTRIES—						
Artificial flowers and feathers	28	57	37	173,984	68	502
Automobile accessories, fabric	9	76	33	304,442	162	276
Brooms, brushes and mops	86	292	152	940,824	1,011	709
Buttons	20	101	38	375,487	401	356
Candles	12	43	26	142,898	93	71
Fountain pens and pencils	11	117	104	528,396	264	454
Ice, artificial	53	91	45	234,334	641	14
Jewellery cases and silverware cabinets	4	16	18	71,154	71	122
Lamps, electric, and lamp shades	24	49	25	167,113	168	261
Mattresses and springs	76	293	149	1,180,805	1,821	648
Miscellaneous, including carpet sweepers	5	5	3	14,732	30	28
Motion pictures	5	328	268	1,223,815	64	38

VIII
MATERIALS, AND VALUES OF PRODUCTS OF CANADIAN MANUFACTURING INDUSTRIES, 1944.—*cont.*

Wages	*Total Employees*	*Total Salaries and Wages*	*Cost of Fuel and Electricity*	*Cost of Materials*	*Value of Products*	
Wages					*Net*	*Gross*
$	*No.*	$	$	$	$	$
8,609,633	6,430	10,608,078	533,021	9,371,197	17,249,861	27,154,079
62,862,667	36,963	75,076,875	3,015,914	126,539,119	126,852,257	256,407,290
38,558,387	26,692	50,452,569	1,723,381	50,665,344	95,131,051	147,519,776
11,139,054	8,008	14,517,083	429,140	6,339,479	23,153,381	29,922,000
54,428,694	30,763	60,837,031	17,276,424	92,214,866	103,018,391	212,509,681
55,771,990	29,911	61,355,214	3,861,080	78,432,377	85,513,150	167,806,607
22,350,937	16,852	27,140,973	1,277,564	57,624,118	51,027,176	109,928,858
128,341,104	67,076	138,967,246	3,610,913	101,056,440	224,632,290	329,299,643
9,365,773	6,575	11,449,592	934,152	13,506,456	27,169,228	41,609,836
695,369,371	411,944	818,452,454	46,205,965	1,104,083,922	1,390,703,087	2,540,992,974
8,099,449	5,561	9,918,846	864,883	14,096,430	16,724,821	31,686,134
28,254,373	17,633	33,490,354	2,734,387	72,460,196	74,656,771	149,851,354
60,861,574	48,834	82,304,460	2,488,432	120,413,034	160,169,974	283,071,440
5,215,492	4,586	7,024,646	173,081	13,650,416	12,840,590	26,664,087
909,753	862	1,323,647	45,058	1,770,096	3,747,287	5,562,441
36 720,810	23,927	44,536,991	36,907,623	313,996,140	123,303,038	474,206,801
3,351,504	2,911	4,310,348	316,930	12,930,750	8,056,038	21,303,718
143,412,955	104,314	182,909,292	43,530,394	549,317,062	399,498,519	992,345,975
4,379,986	2,773	5,511,030	2,580,192	9,926,243	17,558,678	30,065,113
1,094,157	926	1,405,234	198,385	2,281,287	2,280,913	4,760,585
2,025,285	1,207	2,254,775	3,197,955	2,566,432	6,882,354	12,646,741
1,254,283	1,195	1,746,324	273,456	3,029,635	3,255,372	6,558,463
2,582,522	2,247	3,176,804	1,357,313	161,189	5,478,923	6,997,425
1,414,124	1,241	1,819,307	310,155	979,998	3,134,412	4,424,565
6,548,346	4,747	8,940,613	6,478,811	37,809,253	25,287,651	69,575,715
7,138,193	5,524	8,433,385	1,807,152	9,931,251	15,687,258	27,425,661
721,837	569	856,261	297,606	2,659,683	2,120,188	5,077,477
1,235,624	815	1,414,426	1,752,723	293,827	5,005,235	7,051,785
2,799,451	1,927	3,441,705	939,612	8,940,232	11,889,972	21,769,816
10,486,951	6,809	14,317,939	9,002,567	153,558,664	47,986,185	210,547,416
905,030	710	1,302,143	652,126	846,298	3,287,660	4,786,084
57,806	46	84,130	20,729	59,609	131,265	211,603
1,027,872	854	1,426,262	160,725	1,670,718	2,538,987	4,370,430
43,671,467	31,590	56,130,338	29,029,507	234,714,319	152,525,053	416,268,879
12,148,459	7,964	15,752,782	8,980,955	29,540,390	42,801,806	81,323,151
713,989	631	1,123,129	232,435	3,139,664	2,254,793	5,626,892
502,162	378	732,528	336,971	3,324,047	2,036,126	5,697,144
3,507,006	2,226	4,610,420	1,162,992	17,690,683	12,335,270	31,188,945
1,094,225	1,025	1,854,511	350,668	1,193,038	7,389,501	8,933,207
564,766	616	1,303,120	46,471	2,019,380	2,674,210	4,740,061
5,563,698	7,600	11,768,012	369,542	22,535,718	32,734,321	55,639,581
69,991,103	50,437	82,008,829	4,942,592	227,608,024	198,943,420	431,494,036
4,311,028	4,821	8,662,357	521,600	24,789,289	23,796,543	49,107,432
537,455	744	1,036,004	32,259	4,033,211	3,293,049	7,358,519
2,878,181	2,996	5,354,142	604,910	17,497,145	15,018,466	33,120,521
1,142,186	2,096	2,798,410	69,300	6,126,860	11,615,561	17,811,721
388,632	288	418,733	245,190	915,300	367,532	1,528,022
103,342,890	81,822	137,422,977	17,895,885	360,412,749	355,260,598	733,569,232
478,241	664	652,225	7,502	628,856	1,147,599	1,783,957
627,536	547	931,978	26,164	4,828,825	1,556,768	6,411,757
1,881,801	2,164	2,822,625	83,136	3,973,756	4,940,514	8,997,406
883,959	896	1,259,446	60,398	1,280,740	2,096,745	3,437,883
149,822	233	292,720	19,289	560,633	729,568	1,309,490
720,746	939	1,249,142	31,994	2,068,838	2,738,259	4,839,091
948,756	791	1,183,090	292,602	145,542	3,001,230	3,439,374
208,477	227	279,631	7,396	234,558	442,122	684,076
382,879	503	549,992	15,419	712,114	1,011,584	1,739,117
3,256,921	2,911	4,437,726	186,230	9,924,830	7,836,756	17,947,816
45,561	66	60,293	2,833	82,276	86,817	171,926
181,724	698	1,405,539	10,845	1,014,529	2,136,616	3,161,990

TABLE

STATISTICS OF THE ESTABLISHMENTS, EMPLOYEES, SALARIES AND WAGES POWER, FUEL,

Province, Industry and Group	*Establishments*	*Employees on Salary*			*Employees on*	
		Male	*Female*	*Salaries*	*Male*	*Female*
	No.	*No.*	*No.*	$	*No.*	*No.*
9.—Miscellaneous Industries—*cont.*						
Musical instruments	23	97	40	250,889	583	45
Pipes, tobacco	5	7	Nil	10,347	30	6
Regalia and society emblems	12	17	9	37,605	19	33
Scientific and professional equipment	48	1,546	971	5,648,077	4,497	2,830
Signs, electric, neon and other	30	92	50	300,655	290	19
Sporting goods	35	118	65	359,933	466	283
Stamps and stencils, rubber and metal	43	90	51	268,134	174	32
Statuary, art goods and novelties	63	99	41	277,779	205	377
Store display accessories	8	15	6	39,019	40	20
Toys	51	94	49	275,275	343	744
Typewriter supplies	8	57	33	254,710	136	73
Umbrellas	6	20	13	68,492	16	62
Totals, Miscellaneous Industries	665	3,720	2,226	13,148,899	11,593	8,003
Grand Totals, All Industries	28,483	126,858	65,700	418,065,594	744,635	285,689

MINES AND MINERALS

The mineral lands of Canada, like other Crown lands, are administered by either the Dominion or the Provincial Governments. The Dominion Government administers the mineral lands of Yukon and the Northwest Territories as well as those in Indian Reserves and in National Parks; all other mineral lands lying within the boundaries of the several provinces are administered by the respective Provincial Governments.

Mining Laws and Regulations on Dominion Lands.

Dominion lands to which these regulations apply are those administered by the Lands, Parks and Forests Branch, Department of Mines and Resources, and lie within Yukon and the Northwest Territories. Titles issued for Dominion lands, the property of the Dominion Government, in these Territories reserve to the Crown the mines and minerals that may be found on or under such lands, together with the right of operation.

The Acts and regulations governing mining and quarrying on Dominion lands are: *Yukon and the Northwest Territories*—Alkali Mining Regulations; Carbon-Black Regulations; Coal Mining Regulations; Potash Regulations; Petroleum and Natural Gas Regulations (which provide that no person shall explore for petroleum or natural gas in Yukon or the Northwest Territories without first obtaining a permit to do so from the Minister of Mines and Resources); and Domestic Coal Permits. *Yukon*—Yukon Placer Mining Act (R.S.C., 1927, c. 216); Yukon Quartz Mining Act (R.S.C., 1927, c. 217); Dredging Regulations. *Northwest Territories*—Quartz Mining Regulations; Placer Mining Regulations; Dredging Regulations; Quarrying Regulations; and Permits to remove sand, stone and gravel from beds of rivers.

Copies of these regulations are available from the Lands, Parks and Forests Branch of the Department of Mines and Resources, Ottawa.

Provincial Mining Laws and Regulations.

The granting of land in any province, except Ontario, no longer carries with it mining rights upon or under such land. In Ontario mineral rights are expressly reserved if they are not to be included. Some early grants in British Columbia, New Brunswick and Quebec also included certain mineral rights. Otherwise, mining rights must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (usually metallic ores), fuel (coal, petroleum, gas) and quarrying. Under these divisions of the provincial mining industry, regulations may be summarised as follows:—

Placer.—In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held and the royalties to be paid.

General Minerals.—These are sometimes described as quartz, lode minerals or minerals in place. The most elaborate regulations apply in this division. In all provinces, except Alberta, a prospector's or miner's licence to search for mineral deposits, valid for a year, must be obtained. A claim of promising ground of a specified size may then be staked. This claim must be recorded within a time limit, with the payment of recording fees. Work to a specified value per annum must be performed upon the claim for a period up to five years, when a grant or lease of the mining rights may be obtained, subject to fees or annual rental. The taxation most frequently applied is a percentage of net profits of producing mines.

Fuels.—In those provinces in which coal occurs, the size of holdings is laid down and the conditions regarding work and rental under which they may be held. In some cases royalties are provided for. In the cases of petroleum and

VIII

MATERIALS, AND VALUES OF PRODUCTS OF CANADIAN MANUFACTURING INDUSTRIES, 1944.—*cont.*

Wages	*Total Employees*	*Total Salaries and Wages*	*Cost of Fuel and Electricity*	*Cost of Materials*	*Value of Products*	
Wages					*Net*	*Gross*
$	*No.*	$	$	$	$	$
772,419	765	1,023,308	68,741	765,218	1,402,358	2,236,317
32,867	43	43,214	1,819	20,095	58,707	80,621
44,345	78	81,950	1,231	109,075	156,566	266,872
14,086,226	9,844	19,734,303	363,257	34,592,256	43,578,970	78,534,483
511,957	451	812,612	63,802	278,708	1,718,323	2,060,833
865,112	932	1,225,045	44,618	1,711,292	3,657,123	5,413,033
277,286	347	545,420	12,668	207,284	880,264	1,100,216
498,126	722	775,905	13,430	788,560	1,159,063	1,961,053
58,379	81	97,398	3,327	83,647	160,958	247,932
877,769	1,230	1,153,044	24,168	1,643,253	2,288,377	3,955,798
291,485	299	546,195	15,196	1,083,254	1,064,961	2,163,411
73,439	111	141,931	1,365	229,368	308,820	539,553
28,155,833	25,542	41,304,732	1,357,430	66,967,507	84,159,068	152,484,005
1,611,555,776	1,222,882	2,029,621,370	225,,583,153	4,832,333,356	4,015,776,010	9,073,692,519

IN CANADA

natural gas, a permit to drill on promising ground is usually first obtained. If oil or gas is discovered, the operator may obtain the lease or grant of a limited area subject to rental or fees. A royalty on production is sometimes payable.

Quarrying.—Regulations under this heading define the size of holding and the terms of lease or grant.

Copies of the legislation and regulations and details concerning them may be obtained from the following authorities:—

Nova Scotia.—Minister of Mines, Parliament Buildings, Halifax.
New Brunswick.—Department of Lands and Mines, Fredericton.
Quebec.—Minister of Mines, Quebec.
Ontario.—Department of Mines, Parliament Buildings, Toronto.
Manitoba.—Director, Mines Branch, Department of Mines and Natural Resources, Winnipeg.
Saskatchewan.—Department of Natural Resources and Industrial Development, Regina.
Alberta.—Department of Lands and Mines, Edmonton.
British Columbia.—Department of Mines, Victoria.

Government Administration and Controls

The Non-Ferrous Metals Control under the Department of Munitions and Supply was dissolved at the end of November, 1945. The administration of Non-Ferrous Metals under the Wartime Prices and Trade Board, however, at that time assumed full control over supply and distribution of non-ferrous metals in addition to continuing controls over prices. In November, 1945, the Steel Control was also ended by the Department of Munitions and Supply, and the Wartime Prices and Trade Board assumed supply and distribution problems in this field as well as continuing controls over prices. However, early in 1946, as a result of the steel industry strikes in the United States, the Steel Control was re-instituted under the Department of Reconstruction and Supply. The Oil Control and the Crown Company, Wartime Oils Limited, which operated under its direction, were also dissolved in November, 1945.

Dominion Fuel Board.

The Board was created in 1922 to meet the need for a permanent organisation responsible to the Government for a thorough and systematic study of the fuel situation and recurrent shortages experienced throughout Canada. It was composed of permanent members of the Dominion Civil Service and the staff of the Board constituted a Division in the Bureau of Mines and Geology, Department of Mines and Resources.

In 1941, the duties, functions and establishment of the Dominion Fuel Board were transferred to the Coal Administration under the Wartime Prices and Trade Board, and in the following year an Emergency Coal Production Board was established to extend financial assistance to coal operators with a view to increasing production. In 1943, the Coal Administration became the Coal Control and was placed under the jurisdiction of the Department of Munitions and Supply. The Emergency Coal Production Board was dissolved as at March 31, 1946, and the Coal Control as at December 31, 1946.

The Dominion Fuel Board was reconstituted under Authority of Order in Council P.C. 5236 of Dec. 19, 1946, with the following appointed as members: Deputy Minister of Reconstruction and Supply (Chairman), Deputy Minister of Finance; and Secretary and Chief Executive Assistant, Department of Mines and Resources.

VALUE AND VOLUME OF MINERAL PRODUCTION

Definite records of the annual value of mineral production go back only to 1886, although actual production began with the earliest settlements. The figures given below are not strictly comparable throughout the whole period, minor changes having been adopted in methods of computing both the metallic content of ores sold and the valuations of the product. Earlier methods resulted in a somewhat higher value than those now in use would have shown. However, the changes do not interfere with the general usefulness of the figures in showing the broad trends in the mineral industry.

I

VALUE OF MINERAL PRODUCTION, 1886–1947

Year	Total Value	Value per Capita	Year	Total Value	Value per Capita
	$	$		$	$
1886	10,221,255	2·23	1934	194,110,968	18·07
1890	16,763,353	3·51	1935	312,344,457	28·80
1895	20,505,917	4·08	1936	361,919,372	33·05
1900	64,420,877	12·15	1937	457,359,092	41·41
1905	69,078,999	11·51	1938	441,823,237	39·62
1910	106,823,623	15·29	1939	474,602,059	42·12
1915	137,109,171	17·18	1940	529,825,035	46·55
1920	227,859,665	26·63	1941	560,241,290	48·69
1925	226,583,333	24·38	1942	566,768,672	48·63
1930	279,873,578	27·42	1943	530,053,966	44·87
			1944	485,819,114	44·87
1931[1]	230,434,726	22·21	1945	498,755,181	41·15
1932	191,228,225	18·19	1946	502,816,251	40·86
1933	221,495,253	20·83	1947[2]	619,133,429	49·21

[1] Beginning with 1931, exchange equalisation on gold production is included.

[2] Subject to revision.

Current Production.

The depression beginning in 1930 had a profound effect upon the production of minerals in Canada. The decline in general commodity prices and the increased price of gold provided a two-fold stimulus to production and, as in the 1920's, output of gold was increased. This rise in the price of gold since 1931 ($20·67 per fine ounce in 1931 to $38·50, Canadian funds, in 1945) resulted in the mines being able to produce from ore that was hitherto unprofitable, and stimulated prospecting to such a degree that many new mines were discovered. In addition, parts of Canada not hitherto of commercial importance were opened up and new communities were established with resultant markets for consumer goods and mine supplies. Base-metal prices declined to low levels, but the improvements that low prices and competition had brought about in productive facilities during the 1920's, together with the presence in the ores of small but appreciable quantities of precious metals, enabled the producing companies to carry on. After a period of readjustment, production expanded again. However, the serious reduction in industrial and construction operations materially restricted the production of coal, non-metallics other than fuels, and the various structural minerals.

The situation, therefore, prior to the outbreak of war in 1939 was that Canada's mineral industries were in a particularly strong position so far as their ability to make a substantial contribution to the country's war effort was concerned. Such a possible contribution had two aspects, namely:—

(1) The production at reasonable cost of those minerals that were essential for the manufacture of armaments, munitions and other war supplies as well as for non-war requirements.

(2) The creation of essential foreign credits by the production of gold and silver and of other minerals, surplus to national needs, for export sale to other countries.

The production of gold was reaching new high records each year so that, in 1940, Canada stood second among the countries of the world with 12·9 per cent of the total world production. Developments in connection with base metals enabled Canadian companies to produce large supplies of copper, nickel, lead and zinc on a low-cost basis. The policy of the Department of Mines and Resources was to encourage and assist in the location of deposits of metals and minerals that were formerly imported, important among which were tungsten, molybdenite and magnesium. Metallurgical processes were extended to include final refining operations of sufficient capacity to handle the major part of Canadian production. In this field, while no aluminium ores are mined in Canada, with the availability of low-cost hydro-electric power, metallurgical plants were established for the production, from imported ores, of refined aluminium on a large scale. At the beginning of the War, producers of base metals entered into voluntary agreements with the Government of the United Kingdom to sell the surplus above Canadian requirements at practically no advance on the low prices prevailing before the War, thus assuring to the United Kingdom a supply of these essential materials without the risk of advancing prices.

In the case of fuels, non-metallics other than fuels, and structural materials, productive capacity in Canada before the War for many essential minerals was more than sufficient to provide for the then-existing industrial and civil requirements. Thus the expanding demands of war industries and the construction operations necessitated by various features of the war programme were readily met.

Canada's mineral production in 1946 was less than in 1945. The value of the metals group was down to the lowest figure since 1936, but clay products and structural materials rose, and fuels and other non-metallic products increased. Recoveries of base metals were lower. The tonnage of copper was down and nickel and zinc declined respectively. Output of lead, however, was up slightly. Gold production in 1946 showed a gain of 4 per cent in quantity over 1945, but a decline of 1 per cent in value because of the return in mid-year of the Canadian dollar to parity with that of the United States. Coal production was up in tonnage and value, but the quantities of natural gas and of crude petroleum were slightly lower than the corresponding 1945 figures. All structural materials, except lime, showed substantial increases over 1945, the volume of cement, sand, gravel, stone, brick and other clay products being higher.

II.—QUANTITIES AND VALUES OF MINERALS PRODUCED, 1944–46

Mineral	1944		1945		1946	
	Quantity	Value	Quantity	Value	Quantity	Value
		$		$		$
Metallics						
Antimony .. .. lb.	1,937,933	281,000	1,667,951	290,557	642,145	96,322
Arsenic (As_2O_2)	2,627,022	180,866	2,045,730	130,909	745,885	38,264
Bismuth .. .. „	123,875	154,844	189,815	260,047	240,504	336,706
Cadmium .. .. „	526,970	579,667	646,064	639,603	802,648	979,230
Calcium .. .. „	Nil	—	22,720	19,312	53,548	68,720
Chromite .. .. ton	27,054	748,494	5,755	160,752	3,110	61,123
Cobalt .. .. lb.	36,283	34,106	109,123	90,026	73,900	70,215
Copper .. .. lb.	547,070,118	65,257,172	474,914,052	59,322,261	367,936,578	46,632,093
Gold .. .. fine oz.	2,922,911	112,532,073[1]	2,696,727	103,823,990[1]	2,832,554	104,096,359[1]
Iron ore .. .. ton	553,252	1,909,608	1,135,444	3,635,095	1,549,523	6,822,947
Lead .. .. .. lb.	304,582,198	13,706,199	346,994,472	17,349,723	353,973,776	23,893,230
Magnesium .. .. „	10,579,778	2,575,695	7,358,545	1,607,264	320,677	75,538
Mercury .. .. „	735,908	1,210,375	Nil	—	Nil	—
Molybdenite concentrates .. .. „	2,127,508	1,079,698	978,117	411,663	736,400	295,640
Nickel .. .. .. „	274,598,629	69,204,152	245,130,983	61,982,133	192,124,537	45,385,155
Palladium, rhodium iridium, etc. fine oz.	42,929	1,960,085	458,674	18,671,074	117,566	5,162,801
Platinum .. .. „	157,523	6,064,635	208,234	8,017,010	121,771	7,672,791
Pitchblende products	[2]	[3]	[2]	[3]	[2]	[3]
Selenium .. .. lb.	298,592	537,466	397,187	728,039	521,867	949,798
Silver .. .. fine oz.	13,627,109	5,859,656	12,942,906	6,083,166	12,544,100	10,493,139
Tellurium .. .. lb.	10,661	18,657	484	929	15,848	24,405
Thallium .. .. „	128	1,690	Nil	—	Nil	—
Tin .. .. .. „	516,626	299,643	849,983	492,990	874,186	507,028
Titanium ore .. .. ton	33,973	165,195	14,147	67,575	1,406	7,735
Tungsten concentrates lb.	886,745	245,780	1,153	1,045	Nil	—
Zinc .. .. .. „	550,823,353	23,685,405	517,213,604	33,308,556	470,620,360	36,755,450
TOTALS, METALLICS	—	308,292,161	—	317,093,719	—	290,424,689
Fuels						
Coal .. .. .. ton	17,026,499	70,433,169	16,506,713	67,588,402	17,806,450	75,361,481
Natural gas .. M cu. ft.	45,067,158	11,422,541	48,411,585	12,309,564	47,900,484	12,165,050
Peat .. .. .. ton	644	5,397	188	1,062	145	1,305
Petroleum, crude .. bbl.	10,099,404	15,429,900	8,482,796	13,632,248	7,585,555	14,989,052
TOTALS, FUELS	—	97,291,007	—	93,531,276	—	102,516,888
Non-Metallics (Excluding Fuels)						
Asbestos .. .. ton	419,265	20,619,516	466,897	22,805,157	558,181	25,240,562
Barite .. .. „	118,719	1,023,696	139,589	1,211,403	120,419	1,006,473
Corundum .. .. „	173	17,111	1,317	130,393	742	102,340
Diatomite .. .. „	13	437	46	1,238	90	2,532
Feldspar	23,509	227,632	30,246	282,656	35,243	384,677
Fluorspar	6,924	217,701	7,369	233,708	8,042	237,491
Garnets (schist) „	3	90	Nil	—	2	1,200
Graphite .. .. „	1,582	171,166	1,910	179,001	1,975	180,405
Grindstones (including pulpstones)	225	12,000	225	10,870	295	17,450
Gypsum .. .. „	596,164	1,511,978	839,731	1,783,290	1,810,937	3,671,503
Iron oxides (ochre) .. „	8,599	150,250	10,314	172,053	12,695	152,268
Magnesitic dolomite	[2]	1,139,281[4]	[2]	1,278,596[4]	[2]	1,225,593[4]
Mica .. .. .. lb.	6,684,846	841,026	7,044,221	233,270	8,720,669	199,039
Mineral waters imp. gal.	156,150	79,031	244,761	126,499	217,842	122,404
Nepheline syenite .. ton	[2]	217,989	61,345	275,766	61,261	229,198

II.—QUALITIES AND VALUES OF MINERALS PRODUCED, 1944–46—*cont.*

Mineral		1944		1945		1946	
		Quantity	Value	Quantity	Value	Quantity	Value
			$		$		$
Non-Metallics—*cont.*							
Peat moss	ton	80,446	1,869,553	83,963	2,011,139	96,839	2,395,649
Phosphate	..	482	6,716	299	4,356	57	869
Quartz	„	1,740,262	1,658,409	1,513,628	1,535,458	1,413,378	1,554,798
Salt	„	695,217	4,074,021	673,076	4,054,720	537,985	3,626,165
Silica brick	M	3,997	312,092	4,208	317,263	2,902	197,804
Soapstone[5]	ton	19,013	204,127	14,225	153,694	14,914	150,004
Sodium carbonate	„	44	484	286	3,146	Nil	—
Sodium sulphate	„	102,421	987,842	93,068	884,322	105,919	1,117,683
Sulphur[6]	..	248,088	1,755,739	250,114	1,881,321	234,771	1,784,666
Talc	..	13,584	153,122	12,863	141,194	14,439	153,680
TOTALS, NON-METALLICS	..	—	37,251,009	—	39,710,513	—	43,754,453
Clay Products and Other Structural Materials							
CLAY PRODUCTS							
Brick—							
Soft Mud Process—							
Face	M	7,917	177,659	5,424	128,762	10,858	223,272
Common	M	14,182	214,336	21,516	378,884	17,013	347,937
Stiff Mud Process (wire cut)—	..						
Face	M	55,175	1,360,083	76,094	2,074,833	106,128	3,050,611
Common	M	44,451	742,437	51,413	940,266	65,406	1,262,178
Dry Press—							
Face	M	13,990	337,715	25,680	636,721	41,573	1,093,612
Common	M	18,809	317,893	19,993	400,091	31,239	645,252
Fancy or ornamental brick	M	28	866	81	5,806	1	82
Sewer brick	M	233	4,391	41	816	171	4,573
Paving brick	M	321	18,793	206	12,010	53	3,686
Firebrick	M	3,180	164,837	3,466	186,651	3,368	205,849
Fireclay and other clay	ton	26,855	136,793	22,954	65,107	35,794	75,586
Bentonite	„	[3]	163,848	[3]	170,799	[3]	211,825
Fireclay blocks and shapes	..	—	221,251	—	225,275	—	222,430
Hollow blocks	ton	87,820	811,558	94,244	998,210	129,694	1,453,549
Roofing tile	M	Nil	—	Nil	—	1	97
Floor tile (quarries)	..	—	43,817	„	46,365	—	50,699
Drain tile	M	13,684	425,725	13,393	495,875	18,051	677,564
Sewer pipe, copings, flue linings, etc.	..	—	964,732	—	1,178,141	—	1,354,839
Pottery, glazed or unglazed	..	—	838,544	—	930,567	—	1,195,473
Other clay products	..	—	52,147	—	37,913	—	128,253
TOTALS, CLAY PRODUCTS	..	—	6,997,425	—	8,913,092	—	12,207,367
OTHER STRUCTURAL MATERIALS							
Cement	bbl	7,190,851	11,621,372	8,471,697	14,246,480	11,560,483	20,122,503
Lime[7]	ton	885,142	6,926,844	832,253	6,525,038	840,799	7,074,940
Sand and gravel	„	28,399,986	10,280,119	29,750,703	10,568,363	39,949,994	15,529,700
Stone—							
Granite	„	269,964	1,303,790	221,630	1,284,748	319,354	2,006,297
Limestone[7]	„	5,565,286	5,528,459	5,677,192	6,284,379	7,217,600	8,178,513
Marble	„	11,829	85,374	13,388	113,337	21,796	201,817

II—QUANTITIES AND VALUES OF MINERALS PRODUCED, 1944-46—*cont.*

Mineral	1944		1945		1946	
	Quantity	Value	Quantity	Value	Quantity	Value
Other Structural Materials—*cont.*						
Stone—*cont.*						
Sandstone .. .. „	146,766	223,453	291,431	466,397	495,777	778,213
Slate .. .. „	1,147	18,101	1,915	17,839	1,733	20,871
TOTALS, OTHER STRUCTURAL MATERIALS	—	35,987,512	—	39,506,581	—	53,912,854
TOTALS, CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS	—	42,984,937	—	48,419,673	—	66,120,221
GRAND TOTALS (CANADIAN FUNDS)	—	485,819,114	—	498,755,181	—	502,816,251

[1] Value in Canadian funds. [2] Not available. [3] Not available for publication. [4] Including brucite. [5] Includes some talc. [6] Sulphur content of pyrites shipped and estimated sulphur contained in the sulphuric acid made from smelter gases. [7] Includes relatively large quantities used in the manufacture of chemicals.

Provincial Distribution of Mineral Production

Since 1907, Ontario has been the principal mineral-producing province of Canada. In 1940, Ontario's production was 49·4 per cent of the total but it has declined steadily to 38·2 per cent in 1946. The rise in the price of gold has been especially favourable to Ontario's mineral production, while the Sudbury nickel-copper deposits are another outstanding feature in the mineral resources of the Province. For many years British Columbia, where most of the important metals are found and substantial quantities of coal exist, was in second place, but for the past nine years Quebec has held that position. A great part of Quebec's mineral production is made up of gold, copper and asbestos. Nova Scotia and Alberta are the most important coal-producing provinces. The discovery and development of the Flin Flon and Sherritt-Gordon ore-bodies resulted in the Provinces of Manitoba and Saskatchewan becoming important producers of base metals, gold and silver. Alberta, besides being a big producer of coal, is the most important province for the production of petroleum and natural gas.

Table IV shows the different minerals that made up the mineral production of each province and also the particular province or provinces that contributed to the production of each mineral in Canada in 1946.

INDUSTRIAL STATISTICS OF MINES AND MINERALS—CAPITAL, LABOUR, WAGES, ETC.

The scope of the annual statistics on mineral production published by the Dominion Bureau of Statistics includes a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc, and nickel-copper industries, as well as a section on metallurgical works. Additional data published at irregular intervals, include such features as capital employed, numbers of employees, wages and salaries paid and net value of sales.

The figures for " net income from sales " of industries are those reported by the operators and are in each case, the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada. The totals indicate more nearly the actual returns to the different industries than do the

III.—MINERAL PRODUCTION, BY PROVINCES, 1941-47

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	$	$	$	$	$	$	$	$	$
1941	32,569,867	3,690,375	99,651,044	267,435,727	16,689,867	15,020,555	41,364,385	78,841,180	6,978,290
1942	32,783,165	3,609,158	104,300,010	259,114,946	14,345,046	20,578,749	47,359,831	77,247,932	7,429,835
1943	29,979,837	3,676,834	101,610,678	232,948,959	13,412,266	26,735,984	48,941,210	68,442,386	4,305,812
1944	33,981,977	4,133,902	90,182,553	210,706,307	13,830,406	22,291,848	51,066,662	57,246,071	2,379,388
1945	32,220,659	4,182,100	91,518,120	216,541,856	14,429,423	22,336,074	51,753,237	64,063,842	1,709,870
1946	35,350,271	4,813,166	92,785,148	191,544,429	16,403,549	24,480,900	60,082,513	74,622,846	2,733,429
1947[1]	32,745,153	4,980,712	110,627,408	241,666,479	17,289,315	31,988,049	62,689,943	113,108,923	4,037,447

[1] Subject to revision.

IV.—DETAILED MINERAL PRODUCTION, BY PROVINCES, 1946

NOTE.—Quantities and values of minerals produced during 1946 in Yukon were—gold, 45,286 fine oz., $1,664,260; silver, 31,230 fine oz., $26,124; lead, 52,144 lb., $3,520; total $1,693,904: and in the Northwest Territories—gold, 23,420 fine oz., $860,685; silver, 6,112 fine oz., $5,113; natural gas, 1,500 M cu. ft., $335: petroleum 177,282 bbl., $173,392; total $1,039,525. Data for pitchblende products found in these areas are not available for publication. For the Dominion totals of individual minerals, see Table II. Dashes in this table indicate that no production was recorded. The ton referred to is the short ton of 2,000 lb.

Mineral		Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Metallics									
Antimony	lb.	—	—	—	—	—	—	—	642,145
	$	—	—	—	—	—	—	—	96,322
Arsenic ..	lb.	—	—	420,654	325,231	—	—	—	—
	$	—	—	21,580	16,684	—	—	—	—
Bismuth ..	lb.	—	—	6,484	—	—	—	—	234,020
	$	—	—	9,078	—	—	—	—	327,628
Cadmium ..	lb.	—	—	—	—	63,410	102,923	—	636,315
	$	—	—	—	—	77,360	125,566	—	776,304
Calcium ..	lb.	—	—	—	53,548	—	—	—	—
	$	—	—	—	68,720	—	—	—	—
Chromite ..	ton	—	—	3,110	—	—	—	—	—
	$	—	—	61,123	—	—	—	—	—
Cobalt ..	lb.	—	—	—	73,900	—	—	—	—
	$	—	—	—	70,215	—	—	—	—
Copper ..	lb.	—	—	69,797,697	179,424,639	38,501,047	62,712,954	—	17,500,538
	$	—	—	8,934,105	22,502,528	4,928,134	8,027,258	—	2,240,068
Gold[1] ..	fine oz.	4,321	—	618,339	1,813,333	79,402	112,101	110	136,242
	$	158,797	—	22,723,958	66,639,988	2,918,024	4,119,712	4,042	5,006,893
Iron ore ..	ton	—	—	—	1,549,523	—	—	—	—
	$	—	—	—	6,822,947	—	—	—	—
Lead ..	lb.	—	—	7,359,708	699,244	—	—	—	345,862,680
	$	—	—	496,780	47,199	—	—	—	23,345,731
Magnesium	lb.	—	—	—	320,677	—	—	—	—
	$	—	—	—	75,538	—	—	—	—
Molybdenite	lb.	—	—	736,400	—	—	—	—	—
	$	—	—	295,640	—	—	—	—	—
Nickel ..	lb.	—	—	—	192,124,537	—	—	—	—
	$	—	—	—	45,385,155	—	—	—	—
Palladium, rhodium etc. ..	fine oz.	—	—	—	117,566	—	—	—	—
	$	—	—	—	5,162,801	—	—	—	—
Platinum ..	fine oz.	—	—	—	121,771	—	—	—	—
	$	—	—	—	7,672,791	—	—	—	—
Selenium ..	lb.	—	—	110,768	270,606	46,118	94,375	—	—
	$	—	—	201,598	492,503	83,935	171,762	—	—
Silver ..	fine oz.	146	—	1,916,453	2,485,215	528,017	1,498,496	12	6,078,419
	$	122	—	1,603,113	2,078,882	441,686	1,253,492	10	5,084,597
Tellurium	lb.	—	—	—	14,200	349	1,299	—	—
	$	—	—	—	21,868	537	2,000	—	—
Tin ..	lb.	—	—	—	—	—	—	—	874,186
	$	—	—	—	—	—	—	—	507,028
Titanium ore	ton	—	—	1,406	—	—	—	—	—
	$	—	—	7,735	—	—	—	—	—
Zinc ..	lb	—	—	89,650,129	42,628	35,580,537	71,077,110	—	274,269,956
	$	—	—	7,001,675	3,329	2,778,840	5,551,122	—	21,420,484
TOTALS, METALLICS	$	158,919	—	41,356,385	157,061,148	11,228,516	19,250,912	4,052	58,805,055
Fuels									
Coal ..	ton	5,452,898	366,735	—	—	—	1,523,786	8,826,239	1,636,792
	$	30,253,654	2,069,992	—	—	—	2,544,926	33,339,579	7,153,330
Natural gas	M cu. ft.	—	541,010	—	7,051,309	—	209,569	40,097,096	—
	$	—	262,441	—	4,656,528	—	61,740	7,184,006	—
Peat ..	ton	—	—	—	145	—	—	—	—
	$	—	—	—	1,305	—	—	—	—
Petroleum,	bbl.	—	28,584	—	123,082	—	116,686	7,137,921	—
crude ..	$	—	40,018	—	291,719	—	135,990	14,347,933	—
TOTALS, FUELS	$	30,253,654	2,372,451	—	4,949,552	—	2,742,656	54,871,518	7,153,330
Non-Metallics (Excluding Fuels)									
Asbestos ..	ton	—	—	558,181	—	—	—	—	—
	$	—	—	25,240,283	279	—	—	—	—
Barite ..	ton	117,691	—	—	—	—	—	—	2,728
	$	987,473	—	—	—	—	—	—	19,000

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[1] Value in Canadian funds

IV—DETAILED MINERAL PRODUCTION, BY PROVINCES, 1946—*cont.*

Mineral		Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Non-Metallics (Excluding Fuels)—*concluded*									
Corundum	ton	—	—	—	742	—	—	—	—
	$	—	—	—	102,340	—	—	—	—
Diatomite ..	ton	49	—	—	—	—	—	—	41
	$	1,505	—	—	—	—	—	—	1,027
Feldspar ..	ton	—	—	29,758	5,485	—	—	—	—
	$	—	—	330,981	53,696	—	—	—	—
Fluorspar ..	ton	—	—	—	8,042	—	—	—	—
	$	—	—	—	237,491	—	—	—	—
Garnets (schist)	ton	—	—	—	2	—	—	—	—
	$	—	—	—	1,200	—	—	—	—
Graphite ..	ton	—	—	—	1,975	—	—	—	—
	$	—	—	—	180,405	—	—	—	—
Grindstones	ton	—	295	—	—	—	—	—	—
	$	—	17,450	—	—	—	—	—	—
Gypsum ..	ton	1,538,738	38,839	—	122,524	63,187	—	—	47,649
	$	1,812,815	550,972	—	492,179	428,133	—	—	387,404
Iron oxides	ton	—	—	12,268	—	—	—	—	427
	$	—	—	146,401	—	—	—	—	5,867
Magnesitic dolomite and brucite	$	—	—	1,225,593	—	—	—	—	—
Mica ..	lb.	—	—	2,397,788	4,707,381	—	—	—	1,615,500
	$	—	—	108,667	66,952	—	—	—	23,420
Mineral waters	gal.	—	—	211,842	6,000	—	—	—	—
	$	—	—	121,526	878	—	—	—	—
Nepheline syenite	ton	—	—	—	61,261	—	—	—	—
	$	—	—	—	229,198	—	—	—	—
Peat moss ..	lb.	—	4,493,800	52,764,995	34,351,000	3,543,420	—	—	98,525,546
	$	—	54,892	501,073	228,496	65,039	—	—	1,546,149
Phosphate ..	ton	—	—	57	—	—	—	—	—
	$	—	—	869	—	—	—	—	—
Quart ..	ton	7,525	—	214,076	1,052,644	—	130,105	—	9,028
	$	15,550	—	612,128	852,713	—	47,542	—	26,865
Salt ..	ton	38,371	—	—	441,679	26,166	—	31,769	—
	$	329,579	—	—	2,408,279	446,472	—	441,835	—
Silica brick	M	2,055	—	—	847	—	—	—	—
	$	119,272	—	—	78,532	—	—	—	—
Soapstone[1]	ton	—	—	14,914	—	—	—	—	—
	$	—	—	150,004	—	—	—	—	—
Sodium sulphate	ton	—	—	—	—	—	105,919	—	—
	$	—	—	—	—	—	1,117,683	—	—
Sulphur ..	ton	—	—	92,716	15,433	—	—	—	126,622
	$	—	—	375,328	154,330	—	—	—	1,255,008
Talc ..	ton	—	—	—	14,439	—	—	—	—
	$	—	—	—	153,680	—	—	—	—
TOTALS, NON-METALLICS	$	3,266,194	623,314	28,812,853	5,240,648	939,644	1,165,225	441,835	3,264,740
Clay Products and Other Structural Materials									
Clay products, brick, tile, etc.	$	671,466	336,971	3,457,168	4,288,780	372,920	411,446	1,808,971	859,645
Cement ..	bbl.	—	—	5,046,166	3,677,695	1,254,946	—	809,721	771,955
	$	—	—	7,910,548	6,025,503	2,811,264	—	1,635,222	1,739,966
Lime ..	ton	—	21,915	296,493	412,171	37,360	—	23,785	49,075
	$	—	286,401	2,304,826	3,316,231	392,304	—	204,926	570,252
Sand and gravel	ton	1,105,980	2,203,646	12,374,125	14,881,918	1,333,890	1,732,731	1,812,468	4,505,236
	$	484,585	807,045	3,313,103	6,738,595	416,431	910,661	1,060,703	1,798,577
Stone ..	ton	183,733	121,123	3,486,259	3,890,277	65,132	—	13,417	296,319
	$	515,453	386,984	5,630,265	3,923,972	242,470	—	55,286	431,281
TOTALS, CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS	$	1,671,504	1,817,401	22,615,910	24,293,081	4,235,389	1,322,107	4,765,108	5,399,721
GRAND TOTALS	$	35,350,271	4,813,166	92,785,148	191,544,429	16,403,549	24,480,900	60,082,513	74,622,846

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[1] Includes some talc.

values for the minerals in Table I where, in the cases of copper, lead, zinc and silver, the values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity and other supplies consumed in the production process. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works, especially in the production of aluminium where imported ore only is used and of cobalt which now comes mainly from African ores. The net sales of these plants include, therefore, the net value of the metals recovered from these imported ores and, to this extent, the net sales shown in Tables V and VI include products of other than Canadian origin.

A summary of the industrial statistics of the principal mineral industries operating in Canada in 1944, 1945 and 1946 is presented in Table VI. The difficulties imposed by the War in the way of labour shortages, lack of new equipment and essential supplies necessary for the mines, resulted in a steady drop in the gross value of production for the entire auriferous quartz mining industry. The value of recoverable metals, gold, silver, etc., which was $179,000,000 in 1941 fell to $161,000,000 in 1942, $117,000,000 in 1943, $94,000,000 in 1944 and $86,000,000 in 1945.

PRODUCTION OF METALLIC MINERALS

The metals of chief importance in Canada are copper gold, iron, lead, nickel, those of the platinum group, silver, and zinc. These metals are dealt with individually in the following subsections. In addition, there are a number of metals produced in minor quantities, principally as by-products in the treatment of metalliferous ores (see Tables II and IV).

Copper

Canada is a leading producer and exporter of copper, producing 371,085,128 lb. in 1946, including refined copper and the copper content of concentrates and matte exported. The earliest important copper-mining district in Canada was in the Eastern Townships of Quebec, but the most important copper-bearing ore deposits are now located in northwestern Quebec, the Sudbury district in Ontario, the Flin Flon area in Manitoba and Saskatchewan, and in British Columbia. Production from the Sudbury district became important about 1889 and from the mines of British Columbia about 1896. From 1809 to 1929, British Columbia was the leading copper-producing province, production coming from the Rossland and Boundary districts, the Copper Mountain mine, and the Britannia and Hidden Creek mines along the coast. Shortly after First World War, large development programmes were carried our in connection with the Noranda, Waite-Amulet and other copper-producing properties in western Quebec, the Flin Flon and Sherritt-Gordon properties in western Manitoba, and a very large expansion programme at the nickel-copper properties of Sudbury. In 1946, the mines in Ontario accounted for 48 per cent of the Dominion's copper production; Quebec was credited with 19 per cent; Saskatchewan 16 per cent; Manitoba, 11 per cent; and British Columbia, 6 per cent.

A refinery at Montreal East, Que., treats anodes from the smelter at Noranda, Que., and also the blister copper from the smelter at Flin Flon, Man. The refinery at Copper Cliff, Ont., treats the blister copper from the smelter of the International Nickel Company of Canada, Limited, at Copper Cliff. The Falconbridge Mines Limited, Falconbridge, Ont., regained possession of its refinery at Kristiansand, Norway, in May, 1945, and resumed shipments of

V.—PRINCIPAL STATISTICS OF THE MINERAL INDUSTRIES, BY GROUPS, 1936-45, AND BY PROVINCES, 1945

Group, Year and Province	Plants or Mines	Capital Employed	Employees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies[1]	Net Income from Sales
	No.	$	No.	$	$	$
Grand Totals						
1936	13,229	859,063,095	90,999	116,766,222	205,360,362	291,972,359
1937	15,408	957,344,974	105,414	144,292,384	289,834,949	372,796,027
1938	14,130	954,248,052	107,275	145,644,000	279,366,162	374,415,674
1939	14,239	941,775,385	107,759	152,353,208	270,110,772	393,232,044
1940	13,665	976,348,028	108,886	164,489,686	302,263,316	448,080,729
1941	13,234	1,082,669,355	113,227	186,423,186	368,388,700	497,904,632
1942	12,897	1,145,345,913	112,043	198,550,260	431,911,446	514,109,951
1943	12,449	1,183,442,427	112,140	207,575,955	498,885,557	475,529,364
1944	12,952	[2]	104,878	204,808,314	443,384,744	454,022,468
1945	13,016	[2]	96,250	185,279,926	353,144,326	413,576,800
1945						
Province						
Nova Scotia	656	[2]	14,091	26,707,708	7,265,785	23,684,321
New Brunswick	427	[2]	1,525	2,200,188	480,155	3,636,205
Quebec	3,441	[2]	22,374	39,674,306	119,179,856	106,701,600
Ontario	6,379	[2]	30,634	61,414,603	153,297,060	155,367,764
Manitoba	156	[2]	1,763	3,460,480	11,294,429	10,794,127
Saskatchewan	198	[2]	2,457	5,020,119	20,969,841	19,382,105
Alberta	935	[2]	11,438	22,867,506	4,991,551	44,421,660
British Columbia	697	[2]	11,450	22,520,369	35,378,748	48,159,524
Yukon	7	[2]	173	589,075	68,751	1,177,267
Northwest Territories	120	[2]	345	825,572	218,150	252,227

[1] Includes freight and smelter charges and cost of ores treated for 1937 and subsequent years.

[2] Not available.

matte to that point for treatment. The concentrates from mines in British Columbia are shipped to a United States smelter at Tacoma, Wash.

As copper occurs in association with precious metals and with other base metals which are normally in heavy demand, it is likely that copper production will continue at a fairly uniform rate.

Gold

Canada has been a gold-producing country for over 75 years. During the latter half of the nineteenth century production was chiefly from placer operations in British Columbia and Yukon, while during the present century there has been a rapid growth of production from lode mining both of auriferous quartz and of gold in association with other metals. Gold production in Canada attained its earlier maximum at 1,350,057 fine oz., in 1900, when the Yukon production reached its highest point. The quantities and values of gold produced in Canada are given by provinces for 1936 and subsequent years in Tables VIII and IX.

Gold is produced in Nova Scotia, at points across the Canadian Shield from Quebec to the Northwest Territories, and in the Cordilleran Region of British Columbia and Yukon. Except for comparatively small amounts obtained from alluvial workings in Yukon, British Columbia, Saskatchewan and Alberta, the production is derived from lode mining either of auriferous quartz or of other metallic ores such as copper, nickel and zinc that carry varying amounts of gold. The principal producing districts are: western Quebec; the adjacent districts of Porcupine and Kirkland Lake in Ontario, with other smaller camps scattered across northern Ontario to the western boundary; the Rice Lake and Gods Lake areas in eastern Manitoba and the Flin Flon district on the Manitoba-Saskatchewan boundary; the Bridge River district and the Zeballos camp in British Columbia. Developments in the Yellowknife district in the Northwest Territories have resulted in several producing mines. At the present time the leading gold producer in Canada is the Hollinger mine in the Porcupine camp, the second is the Lake Shore mine in the Kirkland Lake camp, both in northern Ontario, and the third is Noranda, a copper-gold mine in western Quebec. In 1946, about

VI.—PRINCIPAL STATISTICS OF THE MINERAL INDUSTRIES, 1944–46

Industry and Year		Plants or Mines	Employees	Salaries and and Wages	Purchased Fuel Electricity and Process Supplies[1]	Net Income from Sales
Metallics		No.	No.	$	$	$
Alluvial gold	1944	47	211	598,556	84,104	1,197,021
	1945	38	234	692,683	80,748	1,546,005
	1946	39	340	1,112,984	155,943	1,693,568
Auriferous quartz	1944	262	17,226	37,023,505	19,029,032	75,234,384
	1945	716	18,388	37,690,177	18,242,253	67,577,062
	1946	686	21,973	47,211,062	22,080,531	66,342,152
Copper-gold-silver	1944	26	5,175	10,710,071	24,191,776	38,198,039
	1945	41	4,658	9,663,612	21,134,603	38,165,269
	1946	43	4,958	10,243,487	16,870,567	37,433,982
Silver-cobalt	1944	11	165	260,575	99,600	323,260
	1945	8	166	247,203	69,967	82,508
	1946	11	247	404,012	118,363	207,483
Silver-lead-zinc	1944	20	2,769	5,810,290	4,489,198	16,802,759
	1945	20	2,485	5,473,582	3,934,261	23,167,203
	1946	31	2,451	5,987,111	9,079,895	39,262,606
Nickel-copper	1944	9	7,628	14,678,695	9,048,726	54,621,089
	1945	8	5,997	13,008,156	7,790,226	45,605,169
	1946	9	4,439	10,166,680	5,332,956	34,960,264
Miscellaneous metals	1944	27	1,385	2,809,013	2,057,850	3,303,143
	1945	23	985	2,041,349	2,519,571	1,756,559
	1946	21	1,037	2,338,442	3,479,336	3,708,109
Smelting and refining	1944	16	23,927	44,536,991	350,903,763	123,303,038
	1945	17	16,771	33,853,120	265,777,648	89,898,878
	1946	15	14,546	30,648,361	235,152,602	69,565,922
TOTALS, METALLICS ..	1944	418	58,486	116,427,696	409,904,049	312,982,733
	1945	871	49,684	102,669,882	319,549,277	267,798,653
	1946	855	49,991	108,112,139	292,270,193	253,174,086

[1] Includes freight and smelter charges and cost of ores treated.

VI.—PRINCIPAL STATISTICS OF THE MINERAL INDUSTRIES, 1944–46—*cont.*

Industry and Year		Plants or Mines	Employees	Salaries and Wages	Purchased Fuel Electricity and Process Supplies[1]	Net Income from Sales
Fuels		No.	No.	$	$	$
Coal	1944	394	25,596	55,020,537	12,712,820	54,344,700
	1945	373	25,301	49,431,965	11,604,450	52,642,796
	1946	365	25,487	51,343,975	12,637,105	59,607,029
Natural gas	1944	3,621	1,810	2,885,654	201,152	9,571,205
	1945	3,748	1,890	2,993,091	245,812	10,614,782
	1946	3,825	1,655	2,491,361	248,437	10,339,738
Petroleum	1944	2,264	2,547	5,814,676	1,242,795	14,575,563
	1945	2,222	1,968	3,898,662	866,059	13,255,862
	1946	2,314	1,563	3,260,571	1,024,106	13,701,033
Totals, Fuels	1944	6,279	29,953	63,720,867	14,156,767	78,491,468
	1945	6,343	29,159	56,323,718	12,716,321	76,513,440
	1946	6,504	28,705	57,095,907	13,909,648	83,647,800
Non-Metallics (Excluding Fuels)						
Asbestos	1944	10	4,050	6,401,185	4,016,059	17,820,317
	1945	12	4,237	6,679,885	4,235,725	19,857,074
	1946	12	4,547	7,771,921	4,975,892	20,269,687
Feldspar, quartz and nepheline syenite	1944	42	529	772,385	467,937	1,636,093
	1945	31	483	767,517	467,290	1,626,590
	1946	36	517	876,034	440,701	1,727,972
Gypsum	1944	14	328	490,872	387,941	1,124,037
	1945	13	434	647,287	575,645	1,207,645
	1946	14	753	1,246,673	806,571	2,890,156
Iron Oxides	1944	6	55	49,876	37,485	112,765
	1945	5	51	58,011	35,401	136,652
	1946	5	60	77,727	36,017	116,251
Mica	1944	70	400	359,797	56,624	784,402
	1945	40	174	190,138	50,492	182,778
	1946	27	129	153,616	38,086	160,953
Peat (moss and fuel)	1944	39	1,183	1,154,009	383,376	1,780,000
	1945	37	1,233	1,304,249	516,104	1,874,202
	1946	41	1,391	1,562,689	671,161	2,249,651
Salt	1944	9	710	1,302,143	1,498,424	3,287,660
	1945	9	724	1,329,384	1,623,241	3,241,456
	1946	9	713	918,566	1,590,416	2,890,423
Talc and soapstone	1944	6	113	133,883	68,165	289,084
	1945	5	103	134,782	79,582	215,306
	1946	5	87	117,551	63,568	240,116
Miscellaneous[2]	1944	52	865	1,500,250	1,188,860	2,797,719
	1945	51	879	1,601,068	1,378,366	3,037,452
	1946	43	911	1,582,846	1,389,098	2,859,009
Totals, Non-Metallics	1944	248	8,233	12,164,400	8,104,871	29,632,077
	1945	203	8,318	12,712,321	8,961,846	31,379,055
	1946	192	9,108	14,307,623	10,011,510	33,404,218
Clay Products, etc.						
Brick, tile and sewer pipe	1944	102	1,889	2,819,912	1,451,686	4,711,125
	1945	98	2,254	3,348,351	1,892,051	6,093,719
	1946	111	2,879	4,496,283	2,553,369	8,461,331
Stoneware and pottery	1944	8	358	356,892	66,816	767,798
	1945	8	434	479,855	82,632	844,690
	1946	8	558	619,679	90,308	1,102,359
Totals, Clay Products	1944	110	2,247	3,176,804	1,518,502	5,478,923
	1945	106	2,688	3,828,206	1,974,683	6,938,409
	1946	119	3,437	5,115,962	2,643,677	9,563,690

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[1] Includes freight and smelter charges and cost of ores treated.

[2] Includes Natural Abrasives.

VI.—PRINCIPAL STATISTICS OF THE MINERAL INDUSTRIES, 1944-46—*cont.*

Industry and Year		Plants or Mines	Employees	Salaries and Wages	Purchased Fuel Electricity and Process Supplies[1]	Net Income from Sales
OTHER STRUCTURAL MATERIALS		No.	No.	$	$	$
Cement	1944	8	1,207	2,254,775	5,764,387	6,882,354
	1945	8	1,317	2,398,117	6,005,605	9,416,426
	1946	8	1,524	2,929,020	8,793,963	12,930,058
Lime	1944	42	815	1,414,426	2,046,550	5,005,235
	1945	44	856	1,473,829	2,068,489	4,663,859
	1946	41	918	1,616,839	2,412,041	4,910,127
Sand and gravel	1944	5,381	1,773	2,494,657	391,738	9,888,381
	1945	5,011	2,074	2,759,206	416,390	10,151,973
	1946	5,252	2,793	3,600,797	579,489	14,950,211
Stone	1944	466	2,164	3,154,689	1,497,880	5,661,297
	1945	429	2,154	3,114,647	1,451,715	6,714,985
	1946	486	2,720	3,970,404	1,691,598	9,494,113
TOTALS, OTHER STRUCTURAL MATERIALS	1944	5,897	5,959	9,318,547	9,700,555	27,437,267
	1945	5,492	6,401	9,745,799	9,942,199	30,947,243
	1946	5,787	7,955	12,117,060	13,477,091	42,284,509
TOTALS, CLAY PRODUCTS, ETC.	1944	6,007	8,206	12,495,351	11,219,057	32,916,190
	1945	5,598	9,089	13,574,005	11,916,882	37,885,652
	1946	5,906	11,392	17,233,022	16,120,768	51,848,199
GRAND TOTALS	1944	12,952	104,878	204,808,314	443,384,744	454,022,468
	1945	13,015	96,250	185,279,926	353,144,326	413,576,800
	1946	13,457	99,196	196,748,691	332,312,119	422,074,303

[1] Includes freight and smelter charges and cost of ores treated.

82·6 per cent of the total production came from auriferous quartz mines; about 15·2 per cent from mines in which gold was associated with ores of copper, nickel, zinc, etc.; etc.; and about 2·2 per cent from alluvial operations. The auriferous quartz mining industry suffered severely from the shortage of labour and of essential supplies in the later war years; the number of producing mines decreased from 232 in 1939 to 88 in 1946 and their employees dropped from 29,001 to 17,889 during the same period.

Iron

Bog iron ore was first mined and smelted in the Province of Quebec early in the eighteenth century and from that time until 1883 the industry was carried on almost exclusively at Three Rivers. Other furnaces, using local ore, were operated at Radnor Forges and Drummondville, the last to shut down being the Drummondville furnace in 1911.

Deposits of iron ore in Canada are many and widespread, but because of the availability of low-cost, higher-grade

VII.—COPPER PRODUCED, BY PROVINCES, WITH TOTAL VALUES, 1936-47

Year	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Totals	
						Quantity	Value
	lb.	lb.	lb.	lb.	lb.	lb.	$
1936	66,340,175	287,914,078	29,853,220	14,971,609	21,169,343	421,027,732[1]	39,514,101[1]
1937	94,653,132	322,039,208	44,920,835	22,436,843	45,797,988	530,028,615[1]	68,917,219[1]
1938	112,645,797	309,030,106	65,582,772	18,156,157	65,759,265	571,249,664[1]	56,554,034[1]
1939	117,238,897	328,429,665	70,458,890	18,133,149	73,253,408	608,825,570[1]	60,934,859[1]
1940	134,166,955	347,931,013	75,267,937	20,484,954	77,742,582	655,593,441	65,773,061
1941	143,783,978	333,829,767	67,018,563	32,324,512	66,327,166	643,316,713[1]	64,407,497[1]
1942	140,911,876	308,282,414	47,595,586	56,781,466	50,015,521	603,661,826[1]	60,417,372[1]
1943	131,163,776	277,840,560	38,014,872	85,948,719	42,222,205	575,190,132	67,170,601
1944	108,055,172	285,307,278	43,878,639	73,514,499	36,302,628	547,070,118[1]	65,257,172[1]
1945	102,685,069	239,450,875	41,126,155	65,900,701	25,751,252	474,914,052	59,322,261
1946	69,797,697	179,424,639	38,501,047	62,712,954	17,500,538	367,936,875	46,632,093
1947[2]	84,700,000	228,099,130	29,600,000	68,400,000	39,789,949	450,587,079	91,317,157

[1] Includes 779,307 lb. valued at $73,855 produced in Nova Scotia in 1936, 180,609 lb. at $23,620 in 1937; 75,567 lb. valued at $7,535 produced in N.W.T. in 1938; 1,269,179 lb. valued at $128,086 produced in Nova Scotia and 42,382 lb. valued at $4,277 produced in N.W.T. in 1939; 32,727 lb. valued at $3,301 produced in N.W.T. in 1941; 74,963 lb. valued at $7,561 in 1942, and 11,902 lb. valued at $1,428 in 1944. [2] Subject to revision.

VIII.—QUANTITIES OF GOLD PRODUCED, BY PROVINCES, 1936–47

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Total
	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1936 ..	11,960	666,905	2,378,503	139,273	48,981	109	451,938	50,359[1]	3,748,028[1]
1937 ..	19,918	711,480	2,587,095	157,949	65,886	46	505,857	47,982	4,096,213
1938 ..	26,560	881,263	2,896,477	185,706	50,021	305	605,617	79,168[1]	4,725,117[1]
1939 ..	29,943	953,377	3,086,076	180,875	77,120	359	626,970	139,659[1]	5,094,379[1]
1940 ..	22,219	1,019,175	3,261,688	152,295	102,925	215	617,011	135,617[1]	5,311,145[1]
1941 ..	19,170	1,089,339	3,194,308	150,553	138,015	215	608,203	145,376[1]	5,345,179[1]
1942 ..	12,989	1,092,388	2,763,819	136,226	178,871	34	474,339	182,640[1]	4,841,306[1]
1943 ..	4,129	922,533	2,117,215	91,775	174,090	21	241,346	100,192[1]	3,651,301[1]
1944 ..	5,840	746,784	1,731,836	74,168	122,782	51	196,857	44,593[1]	2,922,911[1]
1945 ..	3,291	661,608	1,625,368	70,655	108,568	7	186,854	40,376[1]	2,696,727[1]
1946 ..	4,321	618,339	1,813,333	79,402	112,101	110	136,242	68,706[1]	2,832,554[1]
1947[2] ..	1,257	596,251	1,913,533	71,861	97,000	52	247,220	107,987[1]	3,035,161[1]

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[1] Includes production of the Northwest Territories amounting to 1 oz. fine in 1936; 6,800 oz. fine in 1938; 51,914 oz. fine in 1939; 55,159 oz. fine in 1940; 77,354 oz. fine in 1941; 99,394 oz fine in 1942; 59,032 oz. fine in 1943; 20,755 oz. fine in 1944; 8,655 oz. fine in 1945; 23,420 oz. fine in 1946 and 60,346 oz. fine in 1947. [2] Subject to revision.

IX.—VALUES OF GOLD PRODUCED, BY PROVINCES, 1936–47

NOTE.—Values are calculated at world prices in Canadian funds.

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Total
	$	$	$	$	$	$	$	$	$
1936 ..	418,959	23,361,683	83,318,960	4,878,733	1,715,804	3,818	15,831,388	1,764,076[1]	131,293,421[1]
1937 ..	696,931	24,894,685	90,522,454	5,526,636	2,305,351	1,610	17,699,936	1,678,890	143,326,493
1938 ..	934,248	30,998,426	101,883,578	6,532,209	1,759,489	10,728	21,302,578	2,784,734[1]	166,205,990[1]
1939 ..	1,082,170	34,455,998	111,533,873	6,537,003	2,787,194	12,974	22,659,323	5,047,416[1]	184,115,951[1]
1940 ..	855,432	39,238,238	125,574,988	5,863,357	3,962,613	8,277	23,754,924	5,221,254[1]	204,479,083[1]
1941 ..	738,045	41,939,552	122,980,858	5,796,290	5,313,578	8,277	23,415,816	5,596,976[1]	205,789,392[1]
1942 ..	500,076	42,056,938	106,407,032	5,244,701	6,886,533	1,309	18,262,052	7,031,640[1]	186,390,281[1]
1943 ..	158,967	35,517,521	81,512,777	3,533,337	6,702,465	808	9,291,821	3,857,392[1]	140,575,088[1]
1944 ..	224,840	28,751,184	66,675,686	2,855,468	4,727,107	1,963	7,578,994	1,716,831[1]	112,532,073[1]
1945 ..	126,704	25,471,908	62,576,668	2,720,218	4,179,868	269	7,193,879	1,554,476[1]	103,823,990[1]
1946 ..	158,797	22,723,958	66,639,988	2,918,024	4,119,712	4,042	5,006,893	2,524,945[1]	104,096,359[1]
1947[2] ..	43,995	20,868,785	66,973,655	2,515,135	3,395,000	1,820	8,652,700	3,779,545[1]	106,230,635[1]

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[1] Includes value of production of the Northwest Territories amounting to $35 in 1936; $239,190 in 1938; $1,876,224 in 1939; $2,123,621 in 1940; $2,977,359 in 1941; $3,826,669 in 1942; $2,272,732 in 1943; $799,838 in 1944; $333,218 in 1945; $860,685 in 1946 and $2,112,110 in 1947. [2] Subject to revision.

X.—IRON-ORE SHIPMENTS AND PRODUCTION OF PIG-IRON, FERRO-ALLOYS AND STEEL INGOTS AND CASTINGS, 1936–47

Year	Iron-ore Shipments from Canadian Mines	Production of Pig-Iron			Production of Ferro-Alloys	Production of Steel Ingots and Castings
		Nova Scotia	Ontario	Canada		
	Short tons	Short tons	Short tons	Short tons	Short tons	Short tons
1936	Nil	288,006	471,613	759,619	85,438	1,249,672
1937	„	358,756	647,961	1,006,717	91,921	1,571,227
1938	„	270,879	519,199	790,078	62,637	1,293,812
1939	123,598	290,232	556,186	846,418	85,540	1,551,054
1940	414,603	441,741	867,358	1,309,099	149,394	2,253,769
1941	516,037	421,296	1,106,757	1,528,053	204,354	2,712,151
1942	545,119	467,951	1,507,063	1,975,014	209,017	2,109,851
1943	641,294	345,722	1,412,547	1,758,269	197,094	3,004,124
1944	553,252	395,802	1,456,826	1,852,628	182,428	3,024,410
1945	1,135,444	374,302	1,403,647	1,777,949	178,214	2,877,927
1946	1,549,523	317,180	1,089,072	1,406,252	137,822	2,327,283
1947[1]	2,022,638	354,789	1,613,270	1,969,847[2]	149,832	2,945,166

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[1] Subject to revision. [2] Includes production of 1,788 short tons in British Columbia.

ores in the Lake Superior ranges of the United States and the Wabana deposit in Newfoundland, no iron ore from domestic sources was produced in Canada from 1924 to 1939, inclusive.

In 1937 development work began at the New Helen mine of the Algoma Ore Properties Limited, in the Michipicoten area of Ontario and the first sinter was produced in July, 1939. The high-grade deposits being worked by the Steep Rock Iron Mines Limited, 135 miles west of Port Arthur, Ont., and the more recent discoveries of large deposits of iron ore in the Quebec-Labrador Boundary region have greatly raised the potentialities of Canada as a producer of iron ore. In 1946 there were 1,581,063 tons of iron ore produced, all of which came from Ontario.

XI.—QUANTITIES AND VALUES OF THE WORLD PRODUCTION OF GOLD AND SILVER, BY PRINCIPAL COUNTRIES, 1944 and 1945

NOTE.—Abridged from the Annual Report of the Director of the United States Mint.

Country	1944				1945			
	Gold		Silver		Gold		Silver	
	Quantity	Value ($35·00 per oz.)	Quantity	Value ($0·45062 per oz.)[1]	Quantity	Value ($35·00 per oz.)	Quantity	Value ($0·52240 per oz.)[1]
	oz. fine	$	oz. fine	$	oz. fine	$	oz. fine	$
North America—								
United States	1,022,238	35,778,330	35,651,049	16,065,076	915,403	32,039,105	29,046,047	15,173,655
Canada	2,922,911	102,301,885	13,627,109	6,140,648	2,696,727	94,385,445	12,942,906	6,761,374
Mexico	508,882	17,810,870	73,502,802	33,121,833	524,017	18,340,595	61,097,779	31,917,480
Newfoundland	12,645	442,575	558,787	251,801	11,633	407,155	664,781	347,282
Central America and West Indies	253,126	8,859,510	3,570,386	1,608,887	231,334	8,096,690	3,282,801	1,714,935
South America—								
Bolivia	6,265	219,275	6,797,213	3,062,960	12,860	450,100	6,683,560	3,491,492
Brazil	166,381	5,823,335	28,723	12,943	162,401	5,684,035	28,385	14,828
Chile	203,749	7,131,215	1,000,000	450,620	179,549	6,284,215	1,000,000	522,400
Columbia	553,530	19,373,550	197,318	88,916	506,639	17,732,365	118,587	61,950
Ecuador	84,399	2,953,965	441,345	—	[2]	—	—	—
Peru	175,180	6,131,300	15,832,440	7,134,414	162,963	5,703,705	12,886,661	6,731,992
Venezuela	64,608	2,261,280	—	—	64,069	2,242,115	—	—
Europe—								
Finland	6,251	218,785	46,896	21,132	5,782	202,370	29,471	15,396
Hungary	28,215	987,525	614,300	276,816	193	6,755	3,200	1,672
Italy	12,860	450,100	643,010	289,753	12,860	450,100	643,010	335,909
Norway	—	—	170,399	76,785	—	—	131,818	68,862
Roumania	71,342	2,496,970	71,310	32,134	91,308	3,195,780	189,689	99,094
Sweden	124,327	4,351,445	1,036,669	467,144	69,092	2,418,220	746,090	389,757
United Kingdom	—	—	33,742	15,205	—	—	26,968	12,152
Asia—								
Formosa	24,963	873,705	130,004	58,582	592	20,220	3,156	1,649
India (British)	187,191	6,549,685	—	—	168,407	5,894,245	—	—
Korea	118,957	4,163,495	2,847,222	1,283,015	96,452	3,375,820	[2]	—
Philippines	—	—	—	—	13,490	472,150	17,208	8,989
Saudi Arabia	8,683	303,905	7,290	3,285	37,972	1,329,020	28,255	14,760
Africa—								
Bechuanaland	11,575	395,125	1,319	594	11,299	395,465	1,236	6,476
Belgian Congo and Ruanda-Urunde	363,000	12,705,000	2,625,000	1,182,938	347,000	12,145,000	4,138,000	2,161,691
British East Africa—								
Kenya	42,259	1,479,015	11,498	5,181	38,517	1,348,095	16,659	8,703
Tanganyika	55,148	1,930,180	17,119	7,714	49,303	1,725,605	21,749	11,702
Cameroons—								
French	18,378	643,230	—	—	14,668	513,380	—	—
Ethiopia	63,720	2,230,200	—	—	50,000	1,750,000	—	—
Liberia	30,772	1,077,020	—	—	9,016	315,560	—	—
Portuguese East Africa	7,577	265,195	—	—	7,953	278,355	—	—
Rhodesia, Southern	592,729	20,745,515	103,776	46,764	568,241	19,888,635	95,974	50,137
Union of South Africa	12,279,629	429,787,015	1,213,051	546,625	12,224,629	427,862,015	1,243,435	649,570
Oceania—								
Australia	656,867	22,990,345	8,340,887	3,758,570	656,936	22,992,760	7,368,999	3,849,565
Fiji	40,443	1,415,505	9,619	4,335	94,964	3,323,740	29,398	15,369
New Zealand	142,287	4,980,045	328,281	147,930	128,364	4,492,740	244,544	127,750
TOTALS[3]	20,903,289	—	169,466,339	—	20,205,964	—	142,730,529	—

[1] Average price per fine ounce at New York.

[2] Not available.

[3] Totals include all countries reporting.

Lead

Lead has been produced in Canada since 1887, and is obtained largely from the ores of British Columbia. Bounties were paid on lead produced in Canada from 1899 to 1918 but the highest production of this period was 63,200,000 lb. in 1900. However, the successful solving by the Consolidated Mining and Smelting Company, of the metallurgical problems connected with the separation and reduction of these lead-zinc ores accounts to a considerable extent for the rapid growth in lead production during recent years.

In the East and West Kootenay districts of British Columbia there are many important mines, the principal of which is the Sullivan lead-zinc mine near Kimberley which accounts for about 95 per cent of the total Canadian output. One of the world's largest smelters treats these ores at Trail, B.C. The lead-zinc mines in western Quebec account for most of the remainder of Canada's production, the concentrates from these properties being shipped to the United States for treatment. There was a small production in 1945 from the silver-lead-zinc ores in the Mayo district of Yukon and from northwestern Ontario. Production by provinces in 1945 is shown in Table IV. Table XII gives the total quantities and values of lead produced in Canada from 1936 to 1947.

XII.—QUANTITIES AND VALUES OF LEAD PRODUCED FROM CANADIAN ORES, 1936–47

Year	Quantity	Value
	lb.	$
1936	383,180,909	14,993,869
1937	411,999,484	21,053,173
1938	418,927,660	14,008,941
1939	388,569,550	12,313,768
1940	471,850,256	15,863,605
1941	460,167,005	15,470,815
1942	512,142,562	17,218,233
1943	444,060,769	16,670,041
1944	304,582,198	13,706,199
1945	346,994,472	17,349,723
1946	353,973,776	23,893,230
1947[1]	323,999,656	44,290,752

[1] Subject to revision.

Nickel

The greater part of the world's output of nickel is produced in Canada and the source of all but a small percentage of the 235,561,113 lb. produced in 1947 came from the nickel-copper ores of the Sudbury district. Some nickel is also obtained as a by-product from the treatment of cobalt-silver ores. The nickel-copper industry includes the mining, smelting and, to a certain extent, the refining of nickel-copper ores. The ore is mined principally for the nickel-copper content, but silver, gold, selenium, tellurium and metals of the platinum group are profitably recovered in the metallurgical processes, although they are present in relatively small quantities. Smelting and copper refining operations are carried on by the International Nickel Company of Canada, Limited, at Copper Cliff, Ont., in close proximity to the mines, and refined nickel is produced at Port Colborne, Ont. The Falconbridge Mines Limited, has a smelter at Falconbridge, Ont., but the matte from this plant is shipped to Norway for refining. During the War, the Falconbridge matte was treated by the International Nickel Company at Copper Cliff.

XIII.—QUANTITIES AND VALUES OF NICKEL PRODUCED, 1936–47

Year	Quantity	Value
	lb.	$
1936	169,739,393	43,876,525
1937	224,905,046	59,507,176
1938	210,572,738	53,914,494
1939	226,105,865	50,920,305
1940	245,557,871	59,822,591
1941	282,258,235	68,656,795
1942	285,211,803	69,998,427
1943	288,018,615	71,675,322
1944	274,598,629	69,204,152
1945	245,130,983	61,982,133
1946	192,124,537	45,385,155
1947[1]	235,561,113	70,312,610

[1] Subject to revision.

Metals of the Platinum Group

Metals of the platinum group include palladium, rhodium, ruthenium, osmium and iridium, with platinum and iridium the most important. These metals occur in the nickel-copper ore of the Sudbury district and are recovered in the tank residues from the nickel refinery at Port Colborne, Ont.; the crude residues are sent to the refinery at Acton, England, for refining. The great increase in the output of nickel-copper ores has made Canada the leading producer of platinum since 1934, when it displaced Russia. The industrial uses of the platinum metals have expanded considerably in recent years, particularly in electrical and chemical equipment, jewellery and in medical and dental appliances. Canada produced 666,908 ounces of platinum metals for a total value of $26,688,084, in 1945. Production was greatly reduced in 1946.

XIV.—QUANTITIES AND VALUES OF PLATINUM AND PALLADIUM PRODUCED, 1936–47

Year	Platinum		Palladium[1]	
	oz. fine	$	oz. fine	$
1936 ..	131,571	5,320,731	103,671	2,483,075
1937 ..	139,377	6,752,816	119,829	3,179,782
1938 ..	161,326	5,196,794	130,893	3,677,342
1939 ..	148,902	5,222,589	135,402	4,199,622
1940 ..	108,486	4,240,362	91,522	3,520,746
1941 ..	124,317	4,750,153	97,432	3,396,304
1942 ..	285,228	10,898,561	222,573	8,279,221
1943 ..	219,713	8,458,951	126,004	5,233,068
1944 ..	157,523	6,064,635	42,929	1,960,085
1945 ..	208,234	8,017,010	458,674	18,671,074
1946 ..	121,771	7,672,791	117,566	5,162,801
1947[2] ..	94,540	5,580,696	103,774	4,274,898

[1] Includes also rhodium, ruthenium, osmium and iridium.
[2] Subject to revision.

XV.—QUANTITIES AND VALUES OF SILVER PRODUCED, 1936–47

Year	Quantity	Value
	oz. fine	$
1936	18,334,487	8,273,804
1937	22,977,751	10,312,644
1938	22,219,195	9,660,239
1939	23,163,629	9,378,490
1940	23,833,752	9,116,172
1941	21,754,408	8,323,454
1942	20,695,101	8,726,296
1943	17,344,569	7,849,111
1944	13,627,109	5,859,656
1945	12,942,906	6,083,166
1946	12,544,100	10,493,139
1947[1]	11,773,619	8,477,006

[1] Subject to revision.

The principal zinc-mining regions of British Columbia are situated in the Kootenay district, where there are large deposits of silver-lead-zinc ore. The chief producing mine is the Sullivan near Kimberley, while other mines are located in the Ainsworth and Slocan divisions of the West Kootenay district. The Britannia mine on Howe Sound while primarily a copper-gold property, produces zinc concentrates when the market is favourable.

In north-western Manitoba, the Flin Flon and Sherritt-Gordon mines have ores in which zinc is closely associated with copper and gold, and refined zinc has been made at the Hudson Bay Mining and Smelting Company's smelter from Flin Flon ores since the autumn of 1930. During 1945, zinc concentrates were shipped by the Waite-Amulet Mines, the Normetal Mining Corporation and the Golden Manitou Mines in the Rouyn district in Quebec, and by the New Calumet mines, near Renfrew, Ont. Production by provinces in 1946 is given in Table IV.

Domestic requirements now take about 60,000 tons of refined zinc compared with 20,000 tons in pre-war years.

XVI.—QUANTITIES OF SILVER PRODUCED, BY PROVINCES, 1936–47

Year	Average Price per fine oz. (Canadian funds)	Nova Scotia	Quebec	Ontario	Manitoba	Saskat-chewan	British Columbia	Yukon	North-west Territories
	cts.	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1936	45·13	107,642	724,339	5,219,366	791,489	642,497	9,748,715	783,416	317,014
1937	44·88	26,990	908,590	4,693,047	905,179	821,818	11,530,177	3,956,504	135,442
1938	43·48	988	1,189,495	4,318,837	1,198,315	898,413	11,186,563	2,844,659	581,902
1939	40·49	173,877	1,167,444	4,689,422	1,028,485	1,141,600	10,648,031	3,830,864	483,874
1940	38·25	725	1,340,450	5,563,101	1,033,512	1,691,540	11,885,556	2,259,343	59,505
1941	38·26	673	1,657,082	4,977,476	966,105	2,047,164	11,233,788	856,772	15,327
1942	42·17	446	1,655,042	4,452,787	821,824	2,664,132	10,596,204	482,133	22,531
1943	45·84	144	2,212,115	2,671,320	587,279	2,812,624	8,995,488	52,348	13,250
1944	43·00	188	2,500,681	3,143,275	569,873	1,735,773	5,631,572	32,066	13,677
1945	47·00	112	2,149,570	3,185,369	533,883	1,426,457	5,620,323	25,158	2,033
1946	83·65	146	1,916,453	2,485,215	528,017	1,498,496	6,078,419	31,230	6,112
1947[1]	72·00	43	2,108,815	2,248,824	358,473	1,120,000	5,912,093	9,165	16,192

[1] Subject to revision.

Silver

Silver-mining is not a distinct industry in Canada as the silver-bearing minerals occur in association with other metals of economic value. Most of the metal is obtained from the treatment of base-metal ores although substantial amounts are recovered from gold-quartz ores and from alluvial gold deposits. For many years the famous camp at Cobalt, Ont., supplied the bulk of Canada's silver, but output from this area has been quite small in recent years. In 1946, 47·7 per cent of Canada's silver came from British Columbia, 21·0 per cent from Ontario, 15·3 per cent from Quebec, 4·2 per cent from Manitoba, 11·7 per cent from Saskatchewan and 0·1 per cent from Yukon and the North-west Territories. Consumption of silver in Canada has increased substantially in recent years and now amounts to about 8,000,000 fine oz. annually.

Zinc

Zinc production in Canada in 1946 showed a decrease of 8·8 per cent over 1945. In the later year, British Columbia accounted for 58 per cent of the total, Manitoba and Saskatchewan for 23 per cent and Quebec for about 19 per cent.

XVII.—QUANTITIES AND VALUES OF ZINC PRODUCED, 1936–47

Year	Quantity[1]	Value	Average Price per lb.
	lb.	$	cts.
1936 ..	333,182,736	11,045,007	3·315
1937 ..	370,337,589	18,153,949	4·902
1938 ..	381,506,588	11,723,698	3·073
1939 ..	394,533,860	12,108,244	3·069
1940 ..	424,028,862	14,463,624	3·411
1941 ..	512,381,636	17,477,337	3·411
1942 ..	580,257,373	19,792,579	3·411
1943 ..	610,754,354	24,430,174	4·000
1944 ..	550,823,353	23,685,405	4·300
1945 ..	517,213,604	33,308,556	6·440
1946 ..	470,620,360	36,755,450	7·810
1947[2] ..	414,779,823	46,579,774	11·230

[1] Estimated foreign smelter recoveries and refined zinc made in Canada. [2] Subject to revision.

PRODUCTION OF FUELS

COAL

The Coal Reserves of Canada

The classification of coals here used is the uniform scientific classification of the coals of the North American continent as a whole which was evolved and later adopted after almost ten years of united research by the Committee of the American Society of Testing Materials, and the Canadian Associate Committee on Coal Classification that was set up in 1928 by the National Research Council of Canada.

On referring to this classification, given below, it will be noted that the coals have been divided into four main classes and thirteen groups. The adoption of this classification made possible for the first time an accurate comparison of the coal deposits of Canada with those of the United States. Prior to this investigation, coal deposits in these two countries having identical chemical and physical characteristics were being assigned to different groups and even to different classes.

The classification of coals by rank is based on the fact that different coals represent different stages in the process of metamorphism from the original vegetation through the series of peat, lignite, sub-bituminous, bituminous, and anthracite, and that each of these stages shows a different percentage of fixed carbon content and a different calorific value as calculated on the mineral-matter-free basis (ash free). The higher rank coals are classified according to the percentage of fixed carbon on a dry basis, whereas the lower rank coals, i.e., those containing less than 69 per cent fixed carbon, are classified according to B.t.u. per pound on the moist (as mined) basis. The limits of the thirteen groups and the four main classes are indicated in the following statement.

With respect to the coal reserves of Canada, the estimate of Canada's coal reserves, as compiled by the late Dr. D. B. Dowling for the Twelfth International Geological Congress, Toronto, 1913, and as reproduced in Geological Survey of Canada, Memoir 59, 1915, should be regarded only as a rough approximation of coal occurring in the earth as a geological phenomenon—not as an estimate of coal that may be considered an economic asset. It was stated also that an estimate of mineable coal reserves of Canada was being prepared for the Royal Commission on Coal. This preliminary estimate appears in Table XVIII.

It will be noted that the estimated coal reserves are arranged in five different groups. The reserves of each of these groups are calculated under the headings "Probable Reserves" and "Possible (Additional) Reserves." The Probable Reserves are those that have been calculated on considerable geological, drilling, and mining development data, whereas the Possible (Additional) Reserves are those based on geological data of much more limited extent.

In estimating the mineable coal reserves of Canada, it was found that no common yardstick with respect to minimum thickness of coal and maximum depth of mining could be employed as these differed materially in different provinces. The limits with respect to these factors that have been adopted are those found practical in the different coalfields under existing mining conditions.

Thus, in Nova Scotia where coal mining is at present being carried on to a depth of almost 4,000 feet and in the submarine areas of the Sydney Coalfield where it is estimated that mining operations within this depth can be carried seaward for a distance of at least five miles from the outcrop, these limits have been set for economic mining development. The minimum thickness of coal seam that can be profitably mined at these limits of depth and distance is placed at 3 feet. In the Joggins coal area of the Cumberland Coalfield, N.S., however, coal seams 2½ feet thick are being mined profitably, and there a relatively small tonnage has been accordingly included.

CLASSIFICATION OF COALS BY RANK

(American Society of Testing Materials Designation 1937.)

Class	Group	Limits of Fixed Carbon or B.t.u. Mineral-Matter-Free Basis	Requisite Physical Properties
I—Anthracite[1]	1. Meta-Anthracite	Dry F.C. 98 per cent or more.	
	2. Anthracite	Dry F.C. 92 to 98 per cent.	
	3. Semi-anthracite	Dry F.C. 86 to 92 per cent.	Non-agglomerating.
II—Bituminous[3]	1. Low Volatile	Dry F.C. 78 to 86 per cent.	
	2. Medium Volatile	Dry F.C. 69 to 78 per cent.	
	3. High Volatile A	Dry F.C. less than 69 per cent and moist[2] B.t.u. 14,000 or more.	
	4. High Volatile B	Moist[2] B.t.u. 13,000 to 14,000.	
	5. High Volatile C	Moist[2] B.t.u. 11,000 to 13,000	Either agglomerating or non-weathering.[5]
III—Sub-bituminous	1. A Coal	Moist[2] B.t.u. 11,000 to 13,000	Both weathering and agglomerating.
	2. B Coal	Moist[2] B.t.u. 9,500 to 11,000	
	3. C[4] Coal	Moist[2] B.t.u. 8,300 to 9,500.	
IV—Lignitic	1. Lignite	Moist[2] B.t.u. less than 8,300	Consolidated.
	2. Brown coal	Moist[2] B.t.u. less than 8,300	Unconsolidated.

[1] If coal is agglomerating it is classified in the Low Volatile Bituminous group.

[2] Moist B.t.u. refers to coal containing its natural bed-moisture, but not including visible water on the surface of the coal.

[3] There may be coking and non-coking varieties in each group of bituminous coal.

[4] Coals having 69 per cent. or more Fixed Carbon on a dry mineral-matter-free basis shall be classified according to Fixed Carbon regardless of B.t.u.

[5] There are three varieties of coal in the High Volatile C Bituminous group, i.e., (1) agglomerating and non-weathering, (2) agglomerating and weathering, and (3) non-agglomerating and non-weathering.

XVIII.—COAL RESERVES, BY PROVINCES, CLASSIFIED BY RANK, WITH PERCENTAGES OF TOTAL FOR EACH PROVINCE

Source: Associate Committee on Coal Classification of the National Research Council.

Rank	Nova Scotia		New Brunswick		Ontario		Manitoba		Saskatchewan	
	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total
	'000 tons	per cent	'000 tons	per cent	'000 tons	per cent	'000 tons	per cent	'000 tons	per cent
Probable Reserves—										
Low volatile bituminous including anthracite	2,360	0·1	Nil	—	Nil	—	Nil	—	Nil	—
Medium volatile bituminous	25,504	0·8	„	—	„	—	„	—	„	—
High volatile bituminous	1,939,160	62·2	89,814	88·7	„	—	„	—	„	—
Sub-bituminous	Nil	—	Nil	—	„	—	„	—	„	—
Lignite	„	—	„	—	100,000	66·7	33,600	33·4	13,126,880	54·4
Totals, Probable Reserves	1,967,024	63·1	89,814	88·7	100,000	66·7	33,600	33·4	13,126,880	54·4
Possible Reserve—										
Low volatile bituminous including anthracite	6,720	0·2	Nil	—	Nil	—	Nil	—	Nil	—
Medium volatile bituminous	16,000	0·5	„	—	„	—	„	—	„	—
High volatile bituminous	1,124,662	36·2	11,566	11·3	„	—	„	—	„	—
Sub-bituminous	Nil	—	Nil	—	„	—	„	—	„	—
Lignite	„	—	„	—	50,000	33·3	67,200	66·6	11,004,000	45·6
Totals, Possible Reserves	1,147,382	36·9	11,566	11·3	50,000	33·3	67,200	66·6	11,004,000	45·6
GRAND TOTALS, PROBABLE AND POSSIBLE RESERVES	3,114,406	100·0	101,380	100·0	150,000	100·0	100,800	100·0	24,130,880	100·0

Rank	Alberta		British Columbia		Yukon		N.W. Territories		Canada	
	'000 tons	per cent	'000 tons	per cent	'000 tons	per cent	'000 tons	per cent	'000 tons	per cent
Probable Reserves										
Low volatile bituminous including anthracite	8,797,600	18·3	1,033,200	5·5	Nil	—	Nil	—	9,833,160	10·0
Medium volatile bituminous	11,854,080	24·5	10,337,748	54·8	87,360	4·6	„	—	22,304,692	22·5
High volatile bituminous	7,540,940	15·5	278,932	1·5	24,640	1·3	30,240	1·1	9,903,726	10·0
Sub-bituminous	6,245,120	13·6	Nil	—	Nil	—	Nil	—	6,245,120	6·4
Lignite	Nil	—	145,600	0·8	322,560	17·1	109,760	4·2	13,838,400	14·0
Totals, Probable Reserves	34,437,740	71·9	11,795,480	62·6	434,560	23·0	140,000	5·3	62,125,098	62·9
Possible Reserves—										
Low volatile bituminous including anthracite	4,334,400	9·0	1,738,800	9·2	Nil	—	Nil	—	6,079,920	6·1
Medium volatile bituminous	3,315,200	6·9	4,551,680	24·2	182,560	9·7	„	—	8,065,440	8·2
High volatile bituminous	3,473,120	7·3	630,956	3·4	28,560	1·6	1,696,800	64·3	6,965,664	7·1
Sub-bituminous	2,310,480	4·8	Nil	—	Nil	—	Nil	—	2,310,480	2·3
Lignite	3,360	0·1	113,120	0·6	1,238,720	65·7	792,960	30·4	13,269,360	13·4
Totals, Possible Reserves	13,436,560	28·1	7,034,556	37·4	1,449,840	77·0	2,489,760	94·7	36,690,864	37·1
GRAND TOTALS, PROBABLE AND POSSIBLE RESERVES	47,874,300	100·0	18,830,036	100·0	1,884,400	100·0	2,629,760	100·0	98,815,962	100·0

In New Brunswick the coal seam being mined averages 18 inches in thickness and everywhere lies within 500 feet of the surface, and these figures have been used as the limits of economic development.

In Saskatchewan the lignite seams being mined are everywhere less than 500 feet in depth and, with the exception of the near-surface mining in the Kelfield coal area of western Saskatchewan, where the coal seam being mined is about 30 inches thick, all the coal seams under development are over 3 feet in thickness. A thickness of 3 feet or more and a maximum depth of 500 feet are accordingly set as the limits in estimating the mineable coal reserves. In the Plains areas of Alberta, the limits of profitable mining for the sub-bituminous coal deposits are placed at a minimum thickness of 3 feet and a maximum depth of 1,000 feet.

In the Foothills belt of Alberta and eastern British Columbia where bituminous coals of Lower and Upper Cretaceous and of Tertiary ages occur, the economic limits of mining are placed at 3 feet thickness and a maximum depth or cover of 2,500 feet.

In southern, central and northern British Columbia and in Yukon Territory, where coals of lignitic and bituminous ranks occur, the limits of economic mining are set at 3 feet thickness of coal seam and 1,000 feet maximum depth. On Vancouver Island and Graham Island where coal deposits of Upper Cretaceous age and of bituminous and anthracitic rank occur, the limits in estimating mineable reserves are placed at a minimum thickness of 3 feet and a maximum depth of 2,000 feet.

Very few data pertaining to the thickness and ranks of the coal deposits in the Northwest Territories and especially in the Arctic Islands are available. The estimates of mineable reserves that have been made are based on limited areas near the coal occurrences and on an assumed minimum thickness of seam of 3 feet. In calculating the reserves 1·29 has been taken as the specific gravity of the coal, which is about 80 pounds of coal per cubic foot, 1,750 short tons of coal per acre foot, and 1,120,000 short tons of coal per square mile foot.

The reserves of mineable coal, as given in Table XVIII, cannot be compared with the estimates of total coal reserves published by the Geological Survey in G.S.C. Memoir 53, 1913, for reasons given previously. These Geological Congress estimates of 1913 must, however, be retained for comparative geological purposes until a complete re-estimate of the mineable or recoverable coal reserves throughout the world has been made. The current estimate of mineable reserves may be considered a very conservative one and doubtless it will be considerably increased as greater exploration and additional knowledge relating to the deposits of the different coalfields is acquired. In most of the coalfields only a small fraction of the area likely to be underlain by coal has been used in the computation, the extent of such areas being determined by the known occurrences of coal and the thicknesses of the seam or seams at the different localities.

The current estimate of mineable coal is less than one-tenth of the 1913 estimate of total coal. The estimates show a slight change also in the relative standing of the different coal-bearing provinces. Alberta, though retaining the leading position, is credited with only 48 per cent of the mineable coal reserves of Canada as against the former estimate of 85 per cent. Saskatchewan holds second place with 24 per cent of the mineable reserves replacing British Columbia which has only 19 per cent of the mineable reserves. The Saskatchewan coal, however, is of lignitic rank whereas that of British Columbia is largely of bituminous and sub-bituminous ranks. Nova Scotia stands fourth with more than 3 per cent of the total mineable coal reserves, most of which is of High Volatile A Bituminous Coal. Northwest Territories stands fifth with slightly less than 3 per cent of the total mineable reserves, Yukon sixth with about 2 per cent, and New Brunswick, Manitoba and Ontario combined possess the remaining reserves which amount to less than 0·5 per cent of the total mineable coal. The percentages of the estimates of probable and possible reserves and of the coals of the five groups indicated in Canada as a whole and in its several coal-bearing provinces, are indicated in Table XVIII.

Coal Production

The fuel situation in Canada is somewhat anomalous as, in spite of the enormous resources of coal and oil, output is relatively small in comparison with domestic requirements.

The Canadian coal areas are situated in the eastern and western provinces, while the areas of densest population

XIX.—COAL PRODUCTION BY PROVINCES, 1936–47

Year	Nova Scotia	New Brunswick	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Totals	
								Quantity	Value
	short tons	short tons	short tons	short tons	short tons	short tons	short tons	short tons	$
1936	6,649,102	368,618	4,029	1,020,792	5,696,960	1,489,171	510	15,229,182	45,791,934
1937	7,256,954	364,714	3,172	1,049,348	5,562,839	1,598,843	84	15,835,954	48,752,048
1938	6,236,417	342,238	2,016	1,022,166	5,251,233	1,440,287	361	14,294,718	43,982,171
1939	7,051,176	468,421	1,138	960,000	5,519,208	1,692,755	Nil	15,692,698	48,676,990
1940	7,848,921	547,064	1,697	1,097,517	6,203,839	1,867,846	”	17,566,884	54,675,844
1941	7,387,762	523,344	1,246	1,322,763	6,969,962	2,020,844	”	18,225,921	58,059,630
1942	7,204,852	435,203	1,265	1,301,116	7,754,053	2,168,541	”	18,865,030	62,897,581
1943	6,103,085	372,873	999	1,665,972	7,676,726	2,039,402	”	17,859,057	62,877,549
1944	5,745,671	345,123	Nil	1,372,766	7,428,708	2,134,231	”	17,026,499	70,433,169
1945	5,112,615	361,184	”	1,532,995	7,800,151	1,699,768	”	16,506,713	67,588,402
1946	5,452,898	366,735	”	1,523,786	8,826,239	1,636,792	”	17,806,450	75,361,481
1947[1]	4,118,196	345,194	”	1,570,620	8,067,201	1,761,568	”	15,862,779	77,979,195

[1] Subject to revision.

XX.—IMPORTS OF ANTHRACITE, BITUMINOUS AND LIGNITE COAL INTO CANADA, 1936–47

NOTE—Anthracite dust is included under anthracite coal.

Year	Anthracite		Bituminous[1]		Lignite		Totals[1]	
	short tons	$	short tons	$	short tons	$	short tons	$
1936	3,418,556	17,897,635	9,700,002	17,039,408	4,873	18,347	13,123,431	34,955,390
1937	3,488,278	17,317,449	11,180,827	20,835,587	1,494	5,582	14,670,599	38,158,618
1938	3,475,801	18,079,657	9,533,729	17,734,567	2,961	11,690	13,012,491	35,825,914
1939	4,288,461	21,938,333	10,706,786	19,628,410	3,398	11,942	14,998,645	41,578,685
1940	3,944,255	23,123,417	13,479,986	26,499,046	2,493	7,669	17,426,734	49,630,132
1941	3,853,010	24,026,095	16,534,449	37,558,900	934	3,046	20,388,393	61,588,041
1942	4,911,625	31,506,629	20,025,483	50,343,442	239	1,148	24,937,347	81,851,219
1943	4,480,285	30,918,555	23,628,300	70,325,413	337	1,487	28,108,922	101,245,455
1944	4,452,991	33,417,990	24,270,692	79,718,988	171	1,038	28,723,854	113,138,016
1945	3,412,739	27,568,369	21,648,350	74,861,376	467	2,229	25,061,556[2]	102,431,974[2]
1946	4,631,387	41,987,460	21,475,040	78,366,184	172	776	26,106,599[2]	120,354,420[2]
1947[3]	4,281,682	41,012,759	24,610,045	97,935,771	203	1,255	28,891,930[2]	138,949,785[2]

[1] Includes coal ex-warehoused for ships' stores. [2] Canada also imported 142,435 short tons of briquettes of coal or coke valued at $1,114,617 in 1945, 182,231 short tons valued at $1,449,221 in 1946, and 245,678 short tons valued at $2,233,654 in 1947. [3] Subject to revision.

XXI.—EXPORTS OF COAL PRODUCEDIN CANADA 1936–47

Year	Quantity	Value
	short tons	$
1936	411,574	1,792,584
1937	355,268	1,441,879
1938	353,181	1,540,990
1939	376,203	1,666,934
1940	504,898	2,361,551
1941	531,449	2,596,626
1942	815,585	4,278,345
1943	1,110,101	5,428,362
1944	1,010,240	5,984,827
1945	840,708	5,303,543
1946	862,489	5,946,224
1947[1]	714,549	5,440,788

[1] Subject to revision.

and greatest industrial development, those of Ontario and Quebec, are more easily and economically supplied with coal from the nearer United States coalfields of Pennsylvania and Ohio. The coal produced in Nova Scotia, New Brunswick and British Columbia is all classed as bituminous, while Alberta produces semi-anthracite, bituminous, subbituminous and lignite, and Saskatchewan and Manitoba lignite only.

Coal Consumption

The sources of coal consumed in Canada in the calendar years 1936–47 are shown in Table XXII and detailed figures of coal made available for consumption in 1947 are given in Table XXIII, the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not " cleared for consumption " until required, while coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally, the coal made available for consumption is greater than the apparent domestic consumption, since coal is landed at Canadian ports and re-exported or ex-warehoused for

XXII.—CONSUMPTION OF CANADIAN AND IMPORTED COAL IN CANADA, BY QUANTITIES AND PERCENTAGES, 1936–47

Year	Canadian Coal[1]		Imported Coal " Entered for Consumption "				Grand Total	Per Capita
			From U.S.A.	From United Kingdom	Total[2]			
	short tons	per cent	short tons	short tons	short tons	per cent	short tons	short tons
1936 ..	14,508,652	53·3	10,801,643	1,498,656	12,719,515	46·7	27,228,167	2·487
1937 ..	15,172,729	51·5	12,574,574	1,211,052	14,268,585	48·5	29,441,314	2·666
1938 ..	13,800,094	53·5	10,754,747	1,257,887	12,012,634	46·5	25,812,728	2·315
1939 ..	14,902,915	50·6	12,923,708	1,099,419	14,564,679	49·4	29,467,594	2·615
1940 ..	16,666,234	49·5	15,509,779	1,514,458	17,036,090	50·5	33,702,324	2·961
1941 ..	17,227,151	46·2	19,332,479	693,902	20,026,082	53·8	37,253,233	3·237
1942 ..	17,725,761	42·0	24,140,841	388,948	24,529,361	58·0	42,255,122	3·626
1943 ..	16,321,006	37·1	27,303,776	391,475	27,695,098	62·9	44,016,104	3·727
1944 ..	15,660,808	35·7	27,948,008	218,511	28,166,201	64·3	43,827,009	3·650
1945 ..	15,227,819	38·3	24,505,241	28,388	24,521,528	61·7	39,749,347	3·279
1946 ..	16,502,508	39·0	25,639,541	101,580	25,740,704	61·0	42,243,212	3·432
1947[3] ..	14,666,276	34·0	28,410,149	52,777	28,462,242	66·0	43,128,518	3·428

[1] The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees and coal used in making coke, etc., less the tonnage of coal exported. [2] Includes small tonnages from countries other than the United Kingdom and the United States. Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores. [3] Subject to revision.

ships' stores without being taken out of bond but, while remaining in bond at the port, it is available for domestic consumption if required.

XXIII.—COAL OUTPUT, EXPORTS, IMPORTS, AND COAL MADE AVAILABLE FOR CONSUMPTION IN CANADA, 1947

Grade	Canadian Coal		Imported Coal[1]	Coal Made Available for Consumption
	Output	Exported		
	short tons	short tons	short tons	short tons
Anthracite ..	Nil	Nil	4,464,007	4,464,007
Bituminous ..	11,060,486	706,408	25,841,440	36,195,518
Sub-bituminous	3,231,673	Nil	Nil	3,231,673
Lignite ..	1,570,620	8,141	203	1,562,682
TOTALS ..	15,862,779	714,549	30,305,650	45,453,880

[1] Coal reaching Canadian ports whether or not it is cleared from customs.

Natural Gas

The producing natural gas wells in Eastern Canada are in southwestern Ontario, and near Moncton, N.B. In Western Canada the principal producing fields are in Alberta and include the Turner Valley (about 35 miles southwest of Calgary), Medicine Hat, Viking (about 80 miles southeast of Edmonton), Redcliff, Foremost, Bow Island and Wetaskiwin. Wainwright, Alta., is supplied with gas from the Maple Leaf Well in the Fabyan field.

Near Lloydminster, in Saskatchewan, a well was brought into production during 1934 and there was a substantial increase in 1946 in output from this area. In 1946, Alberta was credited with 62 per cent of the total value and 86 per cent of the total quantity, while Ontario produced over 35 per cent of the value and over 12 per cent of the total quantity.

Petroleum

The quantity of crude petroleum produced in 1946 was 9·6 per cent less than that produced in 1945. This decline was due chiefly to the decrease in production from the Turner Valley of Alberta. However, the important feature in the 1946 Canadian oil situation was the production of the Lloydminster area straddling the Alberta-Saskatchewan boundary. This district is now second in importance among the oil-producing areas in Canada.

The Alberta Oil Fields*

Over 90 per cent of Canada's oil is produced from the wells of Alberta. The year 1942 was the peak year for oil production in that Province when, for the first time in its history, the oil fields produced over 10,000,000 bbl. Since then there has been a steady decline in production. In 1946, oil production for Alberta as a whole showed a decrease of 917,747 bbl. as compared with the previous year. This was the result of a decrease of 1,050,489 bbl. in the production of Turner Valley wells, less an increase of 132,742 bbl. from fields outside the Valley.

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* Statements taken from "1946 Alberta Oil Review" by J. L. Irwin, Supervisor of Publications, Government of Alberta.

XXIV.—QUANTITIES AND VALUES OF NATURAL GAS PRODUCED, BY PROVINCES, 1941–47

Year	New Brunswick		Ontario		Alberta		Canada[1]	
	M cu. ft.	$	M. cu. ft.	$	M cu. ft.	$	M. cu. ft.	$
1941	653,542	317,437	11,828,703	7,140,130	30,905,440	5,175,364	43,495,353	12,665,116
1942	619,380	299,688	10,476,770	6,809,901	34,482,585	6,146,146	45,697,359	13,301,655
1943	675,029	327,787	7,914,408	6,543,913	35,569,078	6,241,815	44,276,216	13,159,418
1944	702,464	341,636	7,082,508	4,694,097	37,161,570	6,339,817	45,067,158	11,422,541
1945	653,230	317,568	7,199,970	4,837,586	40,393,061	7,095,910	48,411,585	12,309,564
1946	541,010	262,441	7,051,309	4,656,528	40,097,096	7,184,006	47,900,484	12,165,050
1947[2]	465,259	223,324	7,581,715	5,928,115	45,089,861	8,116,175	53,310,382	14,317,843

[1] Totals for Canada include small amounts produced in Saskatchewan and the Northwest Territories. [2] Subject to revision.

XXV.—QUANTITIES AND VALUES OF CRUDE PETROLEUM PRODUCED, BY PROVINCES, 1941–47

Year	New Brunswick		Ontario		Alberta		Northwest Territories		Canada	
	bbl.	$	bbl.	$	bbl.	$	bbl.	$	bbl.	$
1941 ..	31,359	44,102	160,238	337,760	9,918,577	13,985,906	23,664	47,328	10,133,838	14,415,096
1942 ..	28,089	39,467	143,845	306.242	10,117,073	15,514,665	75,789	108,477	10,364,796	15,968,851
1943 ..	24,530	34,342	132,492	311,356	9,601,530	15,724,518	293,750	400,201	10,052,302	16,470,417
1944 ..	23,296	32,832	125,067	296,420	8,727,366	14,468,061	1,223,675	632,587	10,099,404	15,429,900
1945 ..	30,140	42,413	113,325	268,478	7,979,786	13,169,692	345,171	136,303	8,482,796[2]	13,632,248[2]
1946 ..	28,584	40,018	123,082	291,719	7,137,921	14,347,933	177,282	173,392	7,585,555[2]	14,989,052[2]
1947[3] ..	22,848	31,987	124,954	337,375	6,711,276[1]	13,489,665	244,194	239,310	7,632,204[2]	14,701,319[2]

[1] These figures are compiled on a somewhat different basis from the figure of the Alberta Government. [2] Includes 331 bbl. at $256 produced in Saskatchewan in 1940; 14,374 bbl. at $15,362 in 1945; 118,686 bbl. at $135,990 in 1946 and 528,932 bbl. at $602,982 in 1947. [3] Subject to revision.

Fields outside the Turner Valley continued to show increases as in previous years, with the exception of Vermilion. Taber, Conrad and Lloydminster provided the most noticeable increases in 1946. The Lloydminster field was the centre of interest during the year. Situated some 30 miles to the east of Vermilion, it lies partly in Alberta and partly in Saskatchewan. Production on the Alberta side totalled 76,187 bbl. in 1946, an increase of 47,866 over 1945. On the Saskatchewan side, the total was 136,863 bbl., an increase over the preceding year of 120,355 bbl.

With the falling off of production in the Turner Valley field the great need in Western Canada was for the discovery of a second major field. Outside of Turner Valley and Norman Wells, the extensive efforts and the large amounts of capital expended had not been really fruitful. It is true that Lloydminster has made pronounced strides and is still enlarging its activities, but this did not answer the problem. In February, 1947, Ledue No. 1 Well was brought in by Imperial Oil and this drew immediate attention to the new field situated about 18 miles south of Edmonton and 10 miles west of the town of Leduc. From the first this well showed signs of being a major producer, and it was immediately followed by three other wells in the same area which also proved to be in the major production class. As at June 15, 1947, four more wells were being drilled in the proven area, all of which appear to be assured of high production. While, of course, time and the results of large-scale drilling programmes alone will tell the actual significance of the new field, results to date are very promising.

The work of exploration for new Alberta oil fields is continuing by the application of scientific research and the drilling of test wells. Many new structures are being explored, among which that of the Smoky River area between Entrance and Grande Prairie is of special interest.

XXVI.—PRODUCTION OF PETROLEUM FROM ALBERTA WELLS, 1936–46

Year	Quantity	Year	Quantity
	bbl.		bbl.
1936 ..	1,320,428	1942 ..	10,136,296
1937 ..	2,796,874	1943 ..	9,674,548
1938 ..	6,743,101	1944 ..	8,788,726
1939 ..	7,593,492	1945 ..	8,055,440
1940 ..	8,495,207	1946 ..	7,137,693
1941 ..	9,908,643		
		TOTAL	80,650,448

The Tar Sands and Bituminous Developments.—Alberta in its bituminous sands deposit at McMurray, has the greatest known oil reserve on the face of the earth. Estimates vary between that of Canadian geologists at 100,000,000,000 tons and that of the United States Bureau of Mines at 250,000,000,000 tons. The yield at present is about one barrel of oil per ton of sands.

At Bitumount, 50 miles north of McMurray on the Athabaska River, an Oil Sands Limited plant has been erected and experimentation regarding processing of the sand in that area is being carried out. Overburden covering the outcrop is very light at Bitumont and the product, being soft, lends itself more readily to separation than the harder outcrop in other parts of the reserve.

Another feature of the Bitumount area is the question of usage of the separated sand for glass manufacture. The sand analysed for such purpose has been favourably reported on, and quantities have been transported to points of manufacture.

A rich deposit of ' liquid bitumen ' has been uncovered by Dominion Government geologists on the west side of the Mildred-Ruth Lakes Area, opposite the mouth of Steepbank River, 20 miles north of Fort McMurray in northeastern Alberta. The estimate of bitumen content per acre ranges as high as 350,000 bbl. The deposit is located within 20 miles of the north terminus of the Northern Alberta Railway at Waterways, and is about 250 miles north and east of Edmonton.

Within the area of best-grade material in the deposit, the 18 holes assayed thus far give a good indication of the quality and size of the deposit and, while they are quite insufficient for any precise estimates, the presence of a deposit large enough to warrant consideration of commercial development is indicated.

Discovered in the course of wartime exploration operations, the deposit will be turned over to Abasand Oils Limited, the operation of which was taken over by the Alberta Government during the War years to speed commercial development of the ' tar sands.'

EMPIRE AND WORLD PRODUCTION OF FUELS

Coal

The total estimated coal production of the world in 1938, the latest year for which complete figures are available, amounted to about 1,420,000,000 long tons, a decrease of 6 per cent from the previous year.

Petroleum

Oil production for the world, in 1945, reached a total of 2,493,680,000 bbl.; this figure is exclusive of production in Russia and in countries previously controlled by the Axis Powers. The countries contributing the major part of this total were: United States, 1,754,190,000 bbl.; Venezuela, 295,550,000 bbl.; Near and Middle East, 184,690,000 bbl.; and Mexico, 42,340,000 bbl. The production of each of these countries showed an increase over 1944.

The British Empire produces only about 2 per cent of world production of petroleum. Table XXVII shows Empire production for the years 1943 to 1946.

A general estimate of world oil production for 1946, with presently procurable figures, gives an average daily production of 7,750,000 bbl. or an approximate grand total for the year of over 2,800,000,000 bbl. The United States, responsible for 60 per cent of world production as in former years, stood first in quantity of production. Venezuela came definitely in second place, followed by the Middle East, the oil-producing countries under this heading being the Persian Gulf, Iran, Iraq, Saudi Arabia, Bahrein Island, Kuwait, Qatar and Egypt. Russia came fourth. Figures for 1946 are not at present available for all countries of the British Empire.

PRODUCTION OF NON-METALLIC MINERALS (EXCLUDING FUELS)

The most important minerals in this group are asbestos, gypsum, salt and sulphur, but it also includes numerous other items such as feldspar, graphite, iron oxide, magnesitic dolomite, mica, nepheline—syenite, silica brick, sodium sulphate, soapstone and talc.

XXVII.—PETROLEUM PRODUCTION IN THE BRITISH EMPIRE, 1943–46

Country	1943	1944	1945	1946	Per cent of Total 1946
	bbl.	bbl.	bbl.	bbl.	
Bahrein Island	6,570,000	6,800,000	7,304,000	8,010,000	0·29
Borneo, British Sarawak and Brunei	Nil	15,000,000	12,000,000	2,100,000	0·08
Burma	913,000	750,000	750,000	700,000	0·03
Canada	10,123,205	10,099,404	8,567,947	7,668,000	0·28
Great Britain	Nil	670,000	500,000	412,000	0·02
India	2,555,000	3,000,000	3,000,000	2,193,000	0·07
Trinidad	25,000,000	22,000,000	21,500,000	20,233,000	0·74
TOTALS, BRITISH EMPIRE ..	45,161,205	58,319,404	53,621,947	41,316,000	
Per cent British Empire of World ..	1·95	2·27	2·15	1·50	—

Asbestos

The asbestos produced in Canada is practically all of the chrysoltile variety and comes entirely from the serpentised rock in the Eastern Townships of Quebec. The value of the annual production of asbestos increased from less than $24,700 in 1880 to $22,805,157 in 1945 and $25,240,562 in 1946. The Canadian deposits are the largest known in the world. The producing centres are Thetford mines, which has been producing since 1878, Black Lake, East Broughton, Vimy Ridge Asbestos, and St. Remi de Tingwick. The veins of chrysoltile asbestos vary in width from one-quarter inch to one-half inch and occasionally fibre has been obtained several inches in length. The fibre is of good quality and well adapted to spinning.

The world's largest market is in the United States and Canada's proximity to this market is very advantageous to the asbestos industry in this country.

XXVIII.—QUANTITIES AND VALUES OF ASBESTOS PRODUCED, 1936–47

Year	Quantity	Value
	short tons	$
1936	301,287	9,958,183
1937	410,026	14,505,791
1938	289,793	12,890,195
1939	364,472	15,859,212
1940	346,805	15,619,865
1941	477,846	21,468,840
1942	439,459	22,663,283
1943	467,196	23,169,505
1944	419,265	20,619,516
1945	466,897	22,805,157
1946	558,181	25,240,562
1947[1]	662,533	31,847,135

[1] Subject to revision.

Gypsum

The use of gypsum in the building trades has made rapid progress and Canada has extensive deposits of gypsum favourably situated for commercial developments. They are chiefly located in Hants, Inverness and Victoria counties, N.S.; Hillsborough, N.B.; Hagersville and Caledonia, Ont.; Gypsumville and Amaranth, Man.; and Falkland, B.C. The Hillsborough deposit of gypsum in New Brunswick is of very high grade. Gypsum is exported from Canada in crude form mainly to the United States for the manufacture of gypsum products. Canadian production of gypsum amounted to 1,810,937 tons in 1946.

Salt

Salt is obtained from brine wells in the Provinces of Ontario, Manitoba and Alberta, while at Malagash, N.S., it is recovered by mining rock salt and by evaporation from brine. The centres of production in Ontario of the salt

XXIX.—GYPSUM PRODUCED, BY PROVINCES, 1941–47

	Nova Scotia		New Brunswick	Ontario	Manitoba	British Columbia	Canada	
	Quantity	Value	Quantity	Quantity	Quantity	Quantity	Quantity	Value
	tons	$	tons	tons	tons	tons	tons	$
1941	1,395,172	1,517,297	56,172	90,599	27,601	23,862	1,593,406	2,248,428
1942	394,216	512,762	36,623	82,796	29,218	23,313	566,166	1,254,182
1943	255,736	368,639	36,263	92,448	37,989	24,412	446,848	1,381,468
1944	401,284	489,932	42,040	90,288	38,330	24,222	596,164	1,511,978
1945	634,960	790,273	46,755	92,174	42,275	23,617	839,781	1,783,290
1946	1,538,738	1,812,815	38,839	122,524	63,187	47,649	1,810,937	3,671,503
1947[1]	2,053,145	2,520,690	61,616	155,002	67,471	52,923	2,390,157	4,388,745

[1] Subject to revision.

XXX.—SALT PRODUCED, BY PROVINCES, 1941–47

Year	Nova Scotia	Ontario	Manitoba	Alberta	Canada	
	tons	tons	tons	tons	tons	$
1941	54,007	477,170	13,051	16,617	560,845	3,196,165
1942	50,199	558,407	22,706	22,360	653,672	3,844,187
1943	47,775	594,889	27,523	17,499	687,686	4,379,378
1944	38,809	603,806	27,267	25,335	695,217	4,074,021
1945	37,825	578,697	27,133	29,421	673,076	4,054,720
1946	38,371	441,679	26,166	31,769	537,985	3,626,165
1947[1]	44,395	632,544	25,686	28,890	731,515	3,693,769

[1] Subject to revision.

industry are in Amherstburg, Goderich, Sandwich and Windsor. The market for salt in Canada is steadily increasing. Domestic production is sold principally to the dairy, meat-curing and -canning industry, to fisheries, to highways and transport departments, to agriculturists for use as a soil sweetener, to the chemical industries, and as table salt. In 1946, Ontario produced 441,679 tons of salt, 82 per cent of the Canadian total. About one-half of the Dominion's output is used in making caustic soda, soda ash and related chemicals.

Sulphur production statistics given in Table XXXI represent the quantity and value of sulphur contained in iron pyrites shipped plus the quantity and value of sulphur reclaimed for acid manufacture, etc., from smelter fumes. As thus defined, the commercial output of sulphur in Canada during 1946 totalled 231,476 short tons valued at $1,766,119 compared with 250,114 tons worth $1,881,321 in 1945. Production in 1946 comprised 96,854 tons of sulphur in iron pyrites and 134,622 tons recovered from smelter gases. Output by provinces was: Quebec 92,854 tons valued at $386,899; Ontario, 15,322 tons at $153,220; and British Columbia, 123,300 tons at $1,226,000.

Sulphur is used in Canada chiefly in the production of sulphite pulp and in the production of artificial silk and newsprint. It is used to a large extent also in the manufacture of sulphuric acid, explosives and rubber goods and in the production of ammonium sulphate fertilisers.

XXXI.—QUANTITIES AND VALUES OF SULPHUR PRODUCED, 1936–47

Year	Quantity	Value
	tons	$
1936	122,132	1,033,055
1937	130,913	1,154,992
1938	112,395	1,044,817
1939	211,278	1,668,025
1940	170,630	1,298,018
1941	260,023	1,702,786
1942	303,714	1,994,891
1943	257,515	1,753,425
1944	248,088	1,755,739
1945	250,114	1,881,321
1946	231,476	1,766,119
1947[1]	196,780	1,601,372

[1] Subject to revision.

PRODUCTION OF CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS

Production of clay products and other structural materials is dependent upon the activity of the construction industry in Canada; output in 1946 reached a record value of $66,120,221. This group includes cement, clay, and clay products (brick, drain tile, sewer pipe, etc.), lime, sand, gravel and stone. The cement industry in Canada began with the manufacture of hydraulic or natural rock cement. Production was probably first obtained at Hull, Que., between 1830 and 1840. The manufacture of Portland cement began about 1889 and the largest production is now in Quebec and Ontario, although there are active plants in Manitoba, Alberta, and British Columbia. Common clays, suitable for the production of building bricks and tile are found in all the provinces of Canada, although production is greatest in Ontario and Quebec which are the chief areas of population.

Stoneware clays are largely produced from the Eastend and Willows area in Saskatchewan and shipped to Medicine Hat, Alta., where, owing to the availability of cheap gas fuel, they are used extensively in the manufacture of stoneware, sewer pipe, pottery, tableware, etc. Stoneware clay also occurs near Shubenacadie and Musquodoboit in Nova Scotia, some of the Musquodoboit clay is used for pottery, but it has not been developed extensively for ceramic use. Two large plants and a few small plants manufacture fireclay refractories from domestic clay in British Columbia, Saskatchewan and Nova Scotia.

Important deposits of high-grade, plastic, white burning clays occur in northern Ontario, and clay deposits which yield a high-grade of china clay have been found along the Fraser River in British Columbia, but china clay has been produced commercially only from the vicinity of St. Remi D'Amherst, Papineau County, Que., where mining operations were carried on prior to 1923.

Ball clays of high bond strength occur in the " White Mud " beds of southern Saskatchewan, but these have not been developed to any extent.

Deposits of sand and gravel are numerous throughout eastern Canada, with the exception of Prince Edward Island where gravels are scarce. The local needs for these materials are usually supplied from the nearest deposits, as their cost to the consumer is governed largely by the length of the haul. This accounts for the large number of small pits and the small number of large plants. Every province except New Brunswick and Prince Edward Island, produces natural bonded sand. By far the greatest part of production comes from the Niagara Peninsula, Ont.

Some grades of sand particularly suitable for certain industries demand a much higher price than ordinary sand.

Commercial production of sand and gravel is greatest in Quebec and Ontario, these two provinces contributed 73 per cent of the total quantity in 1946.

The greater part of the output of gravel and sand is used in road improvement, concrete works and railway ballast, and most of the commercial plants are equipped for producing crushed gravel, a product that can compete with crushed stone.

The stone industry in Canada has two main divisions, stone quarrying and the stone products industry. The kind of stone quarried in Canada includes granite, limestone, marble, sandstone and slate. The products of these quarries yield high-grade structural and decorative materials and also supply requirements for chemical and other allied industries. The gross value of stone of all varieties produced in Canada in 1946 totalled $11,185,711.

XXXII.—VALUES OF CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS PRODUCED, BY PROVINCES, 1941–47

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	$	$	$	$	$	$	$	$	$
1941[1] ..	1,330,888	1,145,412	16,631,657	18,652,999	2,197,095	631,732	2,626,277	3,416,996	46,633,056
1942[1] ..	1,980,912	1,305,343	17,723,293	16,557,804	2,317,933	707,123	2,836,160	3,564,405	46,992,973
1943 ..	1,597,791	911,121	15,430,999	15,020,990	2,288,339	932,412	2,661,834	3,166,768	42,010,254
1944 ..	1,081,805	1,637,409	14,597,540	15,716,361	2,546,722	864,082	3,044,236	3,496,782	42,984,937
1945 ..	1,310,214	1,489,210	17,051,353	17,437,552	3,212,917	834,564	3,305,941	3,777,922	48,419,673
1946 ..	1,671,504	1,817,401	22,615,910	24,293,081	4,235,389	1,322,107	4,765,108	5,399,721	66,120,221
1947[2] ..	1,852,704	1,954,209	26,374,065	26,492,943	4,588,414	970,554	4,691,637	5,791,633	72,716,159

[1] Includes value of cement containers. [2] Subject to revision.

XXXIII.—VALUES (TOTAL SALES) OF CLAY PRODUCTS PRODUCED, BY PROVINCES, 1941–47

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	$	$	$	$	$	$	$	$	$
1936 ..	355,254	102,256	691,765	1,573,936	55,564	95,584	315,777	280,891	3,471,027
1937 ..	406,846	123,876	1,053,153	2,033,845	95,531	115,330	338,638	349,640	4,516,859
1938 ..	340,253	123,625	1,022,194	2,083,496	105,334	118,713	377,337	365,132	4,536,084
1939 ..	339,952	129,985	1,274,776	2,346,638	78,892	148,774	461,079	371,140	5,151,236
1940 ..	490,543	171,745	1,546,246	2,508,540	102,906	164,828	838,856	520,883	6,344,547
1941 ..	529,435	193,643	1,944,358	3,087,616	84,817	224,897	952,144	558,426	7,575,336
1942 ..	618,441	246,041	1,741,297	2,549,486	80,890	271,325	1,013,497	560,746	7,081,723
1943 ..	478,571	216,446	1,504,428	2,453,829	132,382	348,725	978,649	495,163	6,608,193
1944 ..	402,694	207,051	1,881,791	2,347,396	197,383	330,907	1,143,577	486,626	6,997,425
1945 ..	433,455	232,783	2,534,630	3,107,189	269,917	271,288	1,401,875	661,955	8,913,092
1946 ..	671,466	336,971	3,457,168	4,288,780	372,920	411,446	1,808,971	859,645	12,207,367
1947[1] ..	707,000	326,270	4,192,563	4,737,417	388,973	360,380	1,853,509	1,136,584	13,702,696

[1] Subject to revision.

XXXIV.—QUANTITIES AND VALUES OF PRODUCTION (SALES), IMPORTS AND EXPORTS AND APPARENT CONSUMPTION OF PORTLAND CEMENT, 1941–46

Year	Production[1]		Imports		Exports		Apparent Consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	bbl.[2]	$	bbl.[2]	$	bbl.[2]	$	bbl.[2]	$
1936	4,508,718	6,908,192	39,867	107,180	68,929	56,909	4,479,656	6,958,463
1937	6,168,971	9,095.867	61,082	134,113	72,568	82,978	6,157,485	9,147,002
1938	5,519,102	8,241,350	48,497	105,326	89,419	101,059	5,478,180	8,245,617
1939	5,731,264	8,511,211	16,622	58,316	156,556	159,579	5,591,330	8,409,948
1940	7,559,648	11,775,345	13,213	69,821	299,975	414,442	7,272,886	11,430,724
1941	8,368,711	13,063,588	11,986	59,162	310,873	517,762	8,069,824	12,604,988
1942	9,126,041	14,365,237	26,320	116,126	273,880	476,284	8,878,481	14,005,079
1943	7,302,289	11,599,033	18,577	111,698	172,601	344,004	7,148,265	11,366,727
1944	7,190,851	11,621,372	14,004	97,966	210,449	377,434	6,994,406	11,341,904
1945	8,471,679	14,246,480	32,653	141,539	281,944	535,012	8,222,388	13,853,007
1946	11,560,483	20,122,503	350,057	1,098,532	114,370	236,276	11,796,170	20,984,759

[1] 'Production' as used here means quantity and value of sales. [2] The barrel of cement equals 350 lb. or 3½ cwt.

XXXV.—QUANTITIES AND VALUES OF SAND, SAND and GRAVEL, AND STONE PRODUCED, 1944-46

Material and Purpose	1944		1945		1946	
	Quantity	Gross Value	Quantity	Gross Value	Quantity	Gross Value
	tons	$	tons	$	tons	$
Sand—						
Moulding sand	31,947	65,168	31,611	57,842	32,375	61,419
For building, concrete, roads, etc.	1,605,514	743,191	2,247,887	918,739	3,421,830	1,681,572
Other	50,513	18,761	191,510	68,468	61,801	19,117
Sand and Gravel—						
For railway ballast	4,428,721	900,610	4,625,513	1,116,297	3,968,123	867,616
For concrete, roads, etc.	16,648,511	6,898,582	17,582,686	6,573,527	26,640,116	10,530,718
For mine filling	3,007,422	397,578	1,974,885	376,935	2,024,029	426,063
Crushed gravel	2,627,358	1,256,229	3,096,611	1,456,555	3,801,720	1,943,195
TOTALS, SAND, SAND AND GRAVEL	28,399,986	10,280,119	29,750,703	10,568,363	39,949,994	15,529,700
Stone—						
Building	23,142	396,202	56,711	751,401	70,928	1,411,298
Monumental and ornamental	15,942	737,564	16,229	786,403	22,233	1,129,046
Limestone for agriculture	316,945	601,042	419,579	891,802	480,639	1,044,651
Chemical Uses—						
Flux	626,052	523,554	538,798	489,055	415,389	370,074
Pulp and paper	208,665	374,137	212,051	413,055	247,388	478,074
Other	274,645	272,681	300,665	313,059	208,371	215,917
Rubble and riprap	201,601	187,823	241,780	237,018	326,265	286,142
Crushed	4,219,635	3,641,959	4,282,286	3,742,506	6,073,451	5,340,831
TOTALS, STONE[1]	5,994,992	7,159,177	6,205,555	8,166,700	8,056,260	11,185,711

[1] Totals include minor items not specified.

AGRICULTURE AND AGRICULTURAL PRODUCTION IN CANADA

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Introduction

CANADA'S roots, even today, strike deeply into the soil of her farms. Over a quarter of her people still live on farms, and many of the city dwellers are but a generation removed from the land.

Canadian farmers operating a five billion dollar industry during the war years, 1940-45, have produced annually one and one-half billion dollars worth of farm products. The net value of agricultural production adjusted for changes in wholesale farm prices reached an all-time high for the period 1920-44, of $1·9 billions in 1942. During the war years production exceeded the output of the thirties (depression and drought) and of the prosperous twenties when the highest net value obtained was $1·5 billions. Cash income from the sale of farm products in 1946 was $1·74 billion. Net income of farm operations for the same year totalled $1·27 billion.

What are Canada's present agricultural resources? Sixty years ago over half the people were needed in agriculture in order to feed the remainder of Canada. Today, Canada needs less than one-quarter of the population to operate the farms. Although the farm population has become a smaller part of the total population, it is still large. The farm population, which was 32 per cent of the total in 1931, declined to slightly over 27 per cent by 1941. Almost 3,200,000 people in Canada are living on 733,000 farms. About 32 per cent of the people in the Maritimes live on farms, 25 per cent in Quebec, 19 per cent in Ontario, 47 per cent in the Prairie Provinces, and 13 per cent in British Columbia. Saskatchewan has the highest proportion of population engaged in agriculture with 57 per cent living on farms. The great surplus food producing areas of Canada are still predominantly rural. However, the trend is toward a declining farm population. During the war years, about 286,000 people left the farms for the cities and it is likely that only a small percentage will return.

The extent of the expansion of agriculture, in space, is shown by the fact that during the sixty years between 1881 and 1941 the amount of land used for farming increased from a total of 45 million acres to 175 million acres. Farmers improved this farm land too. In 1881, 22 million acres of farm land were classified as improved. By 1941, improved land had reached a total of 92 million acres. In 1881, land sown to grains such as wheat, oats and barley, occupied 15 million acres. By 1941, grains sprouted on 57 million acres.

The area of Canada's agricultural lands does not, in itself, give a true picture of the agricultural soil resources. Many different types of soils varying in their productivity, adaptability for growing different crops and their management requirements are used for agricultural purposes and a knowledge of their nature and capabilities is essential if one wishes to gain anything more than a general idea of soil resources.

Any statement of the extent of Canada's agricultural soil resources, and particularly of her arable soil resources, cannot be more than an approximation until soil surveys have been made of all areas that have agricultural possibilities.

While all the land being cultivated in Canada at the present time is not first class land, there is no doubt that it does include the cream of the farm lands in Canada. Probably at least five per cent of present cultivated lands should be retired permanently to grass or woodland, but the remainder can be considered as arable land if properly managed.[1]

The most contentious part of any discussion on Canada's arable soil resources is in the estimation of reserves. However, from present information it would appear that a reasonably liberal estimate would be about 45 million acres. This, together with the present cultivated acreage of arable soils would place the total arable soil resources of Canada at about 130 million acres. Considering the nature of the vegetative cover on most of the virgin lands, it appears likely that reserves of native pasture land are rather small in comparison with the reserves of arable land.

The estimated figure of 130 million acres for the total arable soils of Canada is one of considerable magnitude even though it is only about 5½ per cent of the total area of the country or about 10 per cent of the total land area of the nine provinces.[1]

Most of the more readily available agricultural land in Canada has been already occupied. Any further increase in cultivated acreage must either be found on or beyond the fringe of settlement or by intensive improvement through clearing, drainage, irrigation, weed control, etc., of occupied land. In view of the isolated locations of certain known tracts of potential farm land, including the northern clay belt of Quebec and Ontario and areas in the Peace Valley, the intensive development of occupied lands, especially in well-settled districts may merit favourable consideration. This viewpoint is somewhat strengthened by the fact that much of the virgin land yet available for settlement presents difficulties in management, notably as regards the maintenance of fertility in the grey-bush soil of the prairies.

Technological progress has made possible a more effective use of Canada's agricultural resources.

Mechanisation has increased rapidly with the Prairie Provinces taking the lead. In 1921, there were 47,500 tractors in Canada. In 1941, the total had reached 159,000. Today, 60-horse-power Diesel Caterpillars can do a job of clearing timber which seemed to be impossible at the beginning of the century. The number of combines, reaping and threshing in one operation, more than doubled in the 10 years between 1931 and 1941. Mechanisation in the production of grain has progressed so that one man can work a section or even a one-and-a-quarter section farm with the tractor, combine, and the truck. The one man can do the spring tillage, seeding, summerfallow, and harvesting. He will only hire an extra man or a boy during harvest to truck the grain from the combine to the granary or the elevator, thus levelling off the demand for seasonal farm help.

During the war years, 1940-44, Canadian farmers bought farm machinery valued at 300 million dollars.

More and improved machinery will continue to make farm production increasingly efficient. Mechanisation has resulted in greater production per farm worker and per acre. Today, the average Canadian farm worker, with the use of machines and science, works about 85 acres of improved land, as compared to 52 acres in 1911. The use of mechanical power not only directly increases efficiency of farm production but also, by replacing horses and mules, it frees acreage once used to feed those original sources of farm power for food production.

There are also the effects of better plant breeding. The farmer can now get about 60 bushels of hybrid corn per acre where previously he got only 50 bushels from the standard varieties. He can now grow wheat in the Peace River country in northern Alberta, where 25 years ago it was considered a gamble. Perhaps their greatest triumphs have been the developments or discovery of varieties that survive drought, disease and parasites. Farmers who have been almost whipped by short growing seasons, dry weather, rust, smut and other hazards, have been given a fresh chance by new plants such as hybrid corn, Marquis, Thatcher, Renown and Redman wheat, steam sawfly resistant wheat (Rescue), crested wheat grass, and rust and smut resistant oats. But this success is only part of the progress that plant scientists expect to make.

Livestock production per unit has risen by reason of better strains, better methods of disease control and improved feeding practices. It is estimated that hens now lay on the average about 116 eggs each year. Twenty-five years ago the total annual lay per hen was about 75 eggs. Commercial hatchery output has increased.

Today, cows yielding 5,000 pounds of milk are considered average. By artificial insemination, a bull can breed 1,000 cows.

Developments in the use of insecticides alone have brought insect pests more and more under control. The checking of plant and livestock diseases and of pests can greatly increase the amount of crop and livestock products that actually get to market.

NUMBER OF OCCUPIED FARMS BY TENURE

Year	*Owner*	*Manager*	*Tenant*	*Part Owner Part Tenant*
1881 ..	403,491	—	60,534	—
1901 ..	444,680	—	43,890	22,503
1921 ..	609,572	5,608	55,948	39,962
1941 ..	549,972	4,813	93,170	84,760

Weed control is one of the most necessary and at the same time most promising fields of work open to the technical agriculturist. Powerful new weapons of eradication, such as the hormone-like "2,4,D" weed-killer, are being developed by chemists, the efficient application of which may be expected to reduce losses in crop yields from weed infestation.

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[1] Leahey, A. 'The Agricultural Soil Resources in Canada,' *Agricultural Institute Review*, May 1946.

A STATISTICAL REVIEW OF CANADIAN AGRICULTURE BY CENSUS YEARS 1881-1941

Year	*Area Occupied*	*Area Improved*	*Area Under Field Crops*	*Number of Farms*	*Total Population*	*Rural Population*	*Farm Population*	*Gainfully occupied in Agriculture*	*Gainfully occupied in Agriculture as a percentage of total gainfully occupied*	*Improved acres per gainfully occupied farm worker*
	ac.	ac.	ac.		No.	No.	No.	No.	%	
1881 ..	45,358,141	21,865,981	15,079,084	464,025	4,324,810	3,215,303	—	662,266	—	35·02
1901 ..	63,442,338	30,166,033	19,763,740	511,073	5,371,315	3,357,093	—	716,860	40·2	42·08
1921 ..	140,887,903	70,769,548	49,680,918	711,090	8,787,949	4,435,827	—	1,041,541	32·8	67·95
1941 ..	174,767,599	92,441,246	56,792,626	732,715	11,506,655	5,354,239	3,163,288	1,164,000	24·8	79·42

Canada has great agricultural resources. Her agriculture is an industry of truly large proportions. The following pages briefly describe how Canadians have developed their farm resources.

A HISTORICAL REVIEW

Eastern Canada

The first attempts at farming by white men was in 1605 at Port Royal, now Annapolis, Nova Scotia, where Sieur de Monts and Samuel de Champlain established a colony. Here the first wheat in America was grown, the first mill in Canada established, the first boat in America built, and here the waters were reddened with the first bloodshed in the long and bitter struggle between the French and English for the supremacy of America.

In 1608 Champlain, who in that year laid the foundations of the city of Quebec, said of this newly discovered land: " It will be a great grain and grass producing country." In 1617, Louis Hebert landed in New France, as the province of Quebec was then called, and began at once to clear and cultivate the land which is now the site of the Cathedral of Quebec. This Frenchman was the first farmer in the province of Quebec and the first white man to make his living from the farm. In 1626 Champlain established a farm at the foot of Cap Tormente a few miles from Quebec City. Cattle, sheep, swine and poultry were raised here, the original stock having been brought from France.

Most of the settlers in Eastern Canada in the seventeenth century depended for their livelihood in addition to some farming operation on hunting, trapping and fur trading. The Indians readily gave up great quantities of valuable furs for a few gaudy trinkets and many of the earlier traders became wealthy at the expense of the poor ignorant red man.

In the present Maritime provinces the first settlement at Port Royal was located in the land called Acadia. This comprised present provinces of Nova Scotia and New Brunswick. In 1686 the population of Acadia numbered 851 souls. They grew wheat, oats, flax and raised cattle, horses, sheep, swine and poultry.

The first settlement in Prince Edward Island, for the purpose of cultivation, was in 1713. This island was ceded to England by the French in 1763.

Although Jacques Cartier discovered the province of New Brunswick in 1534, practically no agricultural development occurred until an English colony was established at Maugerville a few miles from the present city of Fredericton in the year 1762.

The political status of the early French colonies was of necessity greatly influenced by the conflicts taking place in Europe between France and England. Warfare was frequently carried on between the French colony in Acadia and the British colonies of New England. In 1710 Acadia finally became a British colony and in 1755 the Acadians of French origin who refused to swear allegiance to the British crown were expelled from the colony. The greatest legacy they left was the dykes which they had built, redeeming great areas of very fertile soil, and the fruit trees which they had planted.

Agriculture in the early history of Canada developed very slowly. The early settlers were not farmers but tradesmen, mechanics and discharged soldiers with no knowledge of farming, and it naturally took some time for them to become acquainted with their new vocation. The larger returns which they received from fur trading, hunting and trapping, prevented them from giving up these occupations for the cultivation of the soil. The removal of the virgin forests was a gigantic task, and the first and, to some extent the second generation in Eastern Canada were more occupied in clearing the land than in cultivating the soil. Even down to the year 1859 the value of forest products exported exceeded that of agricultural products.

The absence of markets gave the settlers no incentive to produce any more than they required for actual sustenance of their families. The lack of faith in the possibilities of climate and soil for crop production which was entertained not only by many of the colonists but also in England greatly hindered the rapid development of agriculture. In Oliver Goldsmith's history published in England in 1750, we read that " Nova Scotia was a colony where men might be imprisoned but not maintained!"

When Quebec was conquered by the British in 1759, the French Canadians refused to associate with their conquerors. For about a century, agriculture, hampered by isolation and lack of agricultural organisation, made little progress. In 1850, it was still limited to the growing of cereals without fertilisers, and the production of hay.

The gradual increase of the population, the development of industry, commerce, and of the various means of transportation and communication, is a romantic story. In the early days, the settler carried his wheat on his back or transported it by canoe to the nearest gristmill, which was sometimes many miles distant, and brought back meal for bread. He grew flax and used the fibre to make homemade coarse linen fabrics, supplemented by skins of wild animals and the hides of cattle. Later when sheep were introduced, homespun garments became an important part of the clothing of the early settlers.

As the settlers increased the land became cleared, fences were erected, better houses were built to replace the old log cabins, and barns and stables were constructed. Sickles, flails and wooden ploughs were in time replaced by the self-binder, the threshing machine and iron and steel ploughs. Good livestock was imported, principally from the British Isles, for breeding purposes. The coming of railroads in the fifties and the improvement of highways meant better transportation facilities for the carrying of farm products to the home markets in the growing towns and villages and provided a means of outlet for the delivery of surplus products to foreign markets. When the price of wheat rose from thirty cents to two dollars a bushel during the Crimean War, many a farmer got his first real start towards independence.

The letters on agriculture written at Halifax by John Young (Agricola) in 1818, and the report of Prof. F. W. Johnston published in 1849 on the agricultural possibilities of New Brunswick gave a great impetus to crop production and stock raising in the Maritime Provinces. The growth of the dairy industry in Quebec and Ontario were factors in the advancement of agriculture in these provinces.

Western Canada

As early as 1809, at Fort Dunvegan on the Peace River, Daniel Harmon wrote in his diary: " We have cut our barley and I think it is the finest I ever saw," and in the following year the same diary records that in the opinion of the writer " wheat, rye, barley, oats, peas, etc., could grow well on the plains around us." About fifty years later, Sir John Simpson, the Governor of the Hudson's Bay Company, gave evidence before a special committee of the British House of Commons upon the character and future possibilities of the Canadian Northwest; he intimated that all the territory west of the Red River settlement was fit for little else than pasturage for buffalo herds, and said that in the Red River settlement, agricultural operations had not been encouraging. The development of Western Canada after that time proves the inaccuracy of that statement.

Most authorities date the beginning of agriculture in the prairie provinces (Manitoba, Saskatchewan and Alberta) from the establishment of the Selkirk settlement in 1812 near what is now the site of Winnipeg.

The years intervening between 1812 and 1878 are not without their interest to the agricultural historian. This was a period of exploration and enquiry into the potentialities of the territory, and of attempts at agricultural production from which some knowledge of local physical environment and productivity of the land was acquired. It was a period of isolated pioneer communities operating on a self-sustaining agricultural basis, exchange with the outside being largely dependent on the ability of the settler to trade his products for furs. Under these conditions the agricultural methods of the time were primitive and even slovenly. The single furrow plough, often drawn by oxen, was used in the preparation of cropland. In the earlier years the sickle, scythe, and cradle were employed in harvesting. These were followed later by the self-raking machine, and the wire binder. The first threshing was done with a flail; then horsepower; followed by the upright engine. The milling operation proceeded through the stage of the " quern," windmills, and horsepower. Livestock were housed in crude log houses and straw sheds. The first cream separator did not reach Manitoba until 1885. Even in the last decade of the 19th century, sheep-raising in Manitoba was restricted by the prevalence of the coyote or prairie wolf. Lack of knowledge of the adaptability of cattle to local conditions retarded the development of cattle ranching in Alberta.

Following the Dominion election in 1896, an aggressive immigration policy was adopted and free homesteads were offered throughout the world with the object of inducing settlement on the plains of Western Canada. The result of this policy was that very large areas which formerly had been classified as rangeland and divided into cattle and horse ranches, were broken up into 160-acre lots.

A widespread adoption of summer fallow as a means of conserving moisture and the discovery of marquis wheat contributed greatly to the expansion of wheat production. The results of experimental work on newly established Dominion Experimental Farms in the three prairie provinces were also of great assistance to the pioneer wheat farmers who opened up the Western prairie for agricultural production.

Records available for British Columbia indicate that the first land was cleared and sown at Nootka Sound on Vancouver Island by John McKay in 1786.

The above is a very sketchy historical outline of Canadian agriculture. From a historical viewpoint, the next period that left its mark on Canadian agriculture started with World War I. Agricultural policy became national rather than regional.

The Inter-War Period

Extensive farming in the West and intensive farming in the East were stimulated, by the demands from war-torn Europe, to supply vastly increased quantities of food. First came the urgent wartime demands of 1914 for foodstuffs and then the accelerating inflation of prices, which together led to the vast and rapid expansion of wheat cultivation. Wheat acreage doubled between 1914 and 1920.

From the outset of war, efforts were made to increase production of foodstuffs for exports. Canadian wheat became important for the Allies, since the closing of the Dardanelles had eliminated Russia as a source of supply. The area of some 33 million acres sown to farm crops in 1914 had been increased to about 51 million acres by 1918—a gain of 54 per cent. Livestock raising and dairying were encouraged so that Canada could produce great quantities of meat, butter, cheese and other products for export.

The war years 1914-18 left an inheritance of maladjustment, especially in field crops. Production of field crops, dairy products and farm animals were the most profitable agricultural pursuits during the war, and suffered the most severe depression afterwards. Area under field crops rose from 33 million acres in 1914 to 60 million in 1921. Wheat acreage continued to rise after the war as farmers tried unsuccessfully to combat price collapse with higher output.

During the twenties, and particularly during the last half of the decade there were important shifts in the sources of national income. In general, agriculutre declined relatively in importance, and despite abundant crops the decline was most marked in the later years.

The trend of population movement from the farm to the city was reversed in the thirties, a period mainly marked by depressed economic conditions. It is clear in retrospect that the prairie drought, unemployment, low prices, surplus supplies, restriction of international trade in the years between 1930 and 1939, had profound effects on the standard of living of Canadians, the policies of their governments and their political attitudes.

As a result of the depression, the index of farm commodity prices (1935-39 base) declined more than 50 per cent between 1929 and 1932 and remained near that level for several years. Although there was a substantial recovery in 1937, a further recession immediately followed and the close of the decade found farm prices still more than a third below the 1926 level. Reflecting these depressed prices, income from the sale of farm products declined to 383·5 million dollars, a little more than a third of that prevailing during the latter part of the 1920's. The value of farm property depreciated 30 per cent. The decline in wholesale and retail prices of commodities and services was much less significant.

With the increase in numbers unemployed both on the farm and in the city in the early thirties, action was taken by the Dominion and provincial Governments to alleviate the situation by direct relief, by relief projects, and by relief settlement projects. Provincial governments in some instances also found it necessary to take over the role of parents by providing funds to establish farmers' sons on the land during the 1930's, because of the inability of farmers to provide this assistance. It may be assumed, too, that the expenditures of governments, Dominion, provincial, and municipal, on " relief settlement " during the same period were, in large measure, due to the inability of agriculture to retain within its folds a large number of those who migrated to cities, and, who ultimately became subject to assistance extended in the form of settlement grants.

Governmental—Dominion and provincial—assistance to Canadian agriculture during the 1920's and 1930's included tariff protection, extension of credit to agricultural producers on favourable terms (Canadian Farm Loan Board), relief settlement, a rehabilitation and farm assistance programme for the Prairie Provinces (Prairie Farm Rehabilitation Act), and subsidisation of wheat marketing (Canadian Wheat Board).

By 1939, agricultural expansion, as it was understood in the first two decades of the twentieth century, was over. New areas, it is true, were still being settled—in the east, the Laurentian clay belt; in the west, the parkland districts. But this was more in the nature of internal adjustment and consolidation rather than the widespread development of earlier decades. The Peace River settlement was in considerable degree a special expansion of the immediate post-war twenties. The development of agriculture in northern Ontario and Quebec, at least in the thirties, was often merely secondary to mining and other industry. And the decline in the farm population was particularly evident in Eastern Canada, except in the province of Quebec.

To sum up, since the end of the first World War, manufactures have been assuming a greater role in the productive output of the country as compared to that of agriculture. This has been evident by the increasing proportion contributed by manufactures to the production of the country as measured by the net value of output. In 1919, agriculture contributed 1,457,429,000 dollars or 44 per cent to a total net value of production for the country of 3,313,040,000 dollars while manufacturing contributed 1,095,601,000 dollars or 33 per cent. For the next two years, manufacturing contributed a larger share to the net output than did agriculture. While agriculture regained its dominance in the following seven years, the net value of manufacturing production continued to increase during the period and was not far behind that of agriculture. By 1929 manufacturing was contributing 1,428,733,000 dollars or 39 per cent to a total net value of commodity output of 3,658,485,000 dollars as compared to agriculture's share of 1,020,223,000 dollars or 28 per cent. Since then manufacturing has furnished the larger proportion of the country's net production as manufacturing output has continued to lead that of agriculture in value. In 1939 manufacturing constituted 1,277,265,000 dollars or 39 per cent of a total net value of production of 3,241,131,000 dollars as against agriculture's share of 826,390,000 dollars or 22 per cent. There was then, in the inter-war period, progress towards diversification of industry within Canada. Manufacturing came to play a relatively more important role than did agriculture in the productive life of the nation.

The changes that occurred during the war years 1940-1945 are briefly described in the section entitled " War-time Agriculture."

VALUE OF PRODUCTION IN CANADA, BY INDUSTRIES, 1943

Industry	1943 *Net*
Agriculture	1,245,843,000
Forestry	462,815,227
Fisheries	74,655,678
Trapping	21,579,615
Mining	475,529,364
Electric power	200,833,297
TOTAL, PRIMARY PRODUCTION ..	2,481,256,181
Construction	293,538,167
Custom and repair	144,952,000
Manufactures	3,816,413,541
TOTAL, SECONDARY PRODUCTION ..	4,254,903,708

TYPES OF FARMING

The basic factors which influence types of farming are topography; climate and soil. Canada, stretching from the Atlantic to the Pacific and from the United States boundary to the Arctic, has a wide variety in these factors. In addition, differences in types of farming may develop in areas which have more or less similar climatic and soil conditions. This is brought about by the differences in transportation and other market facilities. Generally, the more intensive types of farming are carried on close to the ultimate market while the more extensive types are found farther distant from the markets.

While there is a wide variation in topographic, climatic and soil conditions in Canada, the severe winters and relatively short growing season in many areas limit the variety of field crops and fruits which can be produced.

The continental type of climate predominates. Only the immediate coastline of British Columbia possesses a climate of the marine type such as that of northwestern Europe. The Atlantic or Maritime provinces, although subject to a modified marine type of climate do not display conditions so mild as those of Europe, on account of the cold Labrador current off the north-western Atlantic and the prevailing easterly movement of the northerly anti-cyclones.

Types of farming have been classified as follows: cash grain, potato, sugar beet, tobacco, fruit and vegetable, beef cattle, dairy, swine, sheep, miscellaneous and fruit products, self-sufficing, self-sufficing combination, and part-time.

Maritime Provinces—Prince Edward Island, Nova Scotia and New Brunswick—have comparatively mild winters with a moist, cool atmosphere. The growing season is fairly long, starting moderately late in the spring but usually keeping free from damaging fall frosts. The average precipitation is 40 to 50 inches except along the southern coastline of Nova Scotia, where it reaches 60 inches. Snow fall is heavy especially in northern New Brunswick, where it reaches 100 inches.

The most important type of farming which has developed in Nova Scotia is apple production. The apple orchards are largely confined to the Annapolis Valley, chiefly in Annapolis and Kings counties. A mixed farming area lies to the north and east of the Annapolis Valley, including Hants, Colchester, Pictou and Cumberland counties. Dairy cattle are quite important in this area, as well as hogs, sheep, potatoes and roots. A number of fur farms are also located in the area. In other parts of Nova Scotia farming is of less importance, although there are many farms along the east coast and in Cape Breton. These farmers operate general mixed farms and many are part-time farmers who have outside employment and income, particularly from fishing, lumbering and mining.

Prince Edward Island is the smallest province in Canada, but is nevertheless important agriculturally. Farming is quite similar in all districts and the Province has developed a reputation for the production of potatoes and turnips as well as for fox farming. Livestock production is also an important enterprise on these farms.

A mixed livestock and crop production programme is most typical in New Brunswick, but some areas have become specialised in certain farm enterprises. The Upper St. John Valley from Woodstock to Grand Falls is a highly specialised potato growing area. In the Sussex area, located in the south-east of the province, dairying is the most important enterprise. There is a small apple producing area in Gagetown Township. The central and northern areas of New Brunswick are still heavily wooded and while there are many farmers in this region the farming is for the most part pioneer or part-time in nature.

The climate of the agricultural areas of the Central provinces is tempered either by the Great Lakes or by the St. Lawrence Waterways. The peninsula of Ontario is much warmer than the northern districts. Precipitation is generally abundant and fairly evenly distributed throughout the year. Natural and economic conditions favour dairying in the Central provinces in a greater degree than in any other Canadian area. Local requirements for liquid milk and other foods are greater than in other sections of Canada due to the relatively high population density. Over 25 per cent of the farmer's income in the two provinces is obtained from the sale of dairy products. Cheese and concentrated milk products are exported from these provinces.

In Quebec, agriculture is very much diversified. In some districts, farmers are part-time fishermen and lumbermen. The main agricultural areas of Quebec lie along the St. Lawrence River, and north of the Ottawa River. The most highly developed area is south and east of the St. Lawrence, often referred to as the Eastern Townships, where mixed farming is general. Montreal and Jesus Islands and the Western border of L'Prairie and Chambly counties makes up a highly specialised small fruit and market garden area, with potatoes and eggs also important. Farmers of the Richelieu-Yamaska area are chiefly interested in dairying, with hogs an important secondary enterprise. The only important apple producing area in Quebec is centered in Iberville, St. Jean and Napierville counties, with some recent development in Chateauguay. The balance of the Eastern Townships is chiefly a dairy area, but hogs, poultry, coarse grains and hay are also important products. Along the eastern edge of this area, farthest from Montreal, beef cattle predominate. Maple products are an important source of income for this area.

To the east, from St. Hilaire to Abbotsford, and to the south around Hemmingford, apples are grown. Cigar tobacco is an important crop around St. Cesaire, and flue-cured tobacco is grown in the vicinity of Joliette. At St. Hilaire a new sugar beet factory has been built. Near Lachute, dairy and poultry farming are well established. Vegetable crops are planted extensively around Montreal. Cheese factories are situated in many districts in Western Quebec, and creameries are established in many districts over the province.

North of the St. Lawrence River and along the Gaspe Peninsula mixed livestock and crop production is the chief type of farming. In the more northerly regions around Lake St. John, blueberries are an important source of income.

Ontario has the widest variety of farming types of any of the provinces, chiefly because of the differences in climatic conditions. While very few farmers have specialised entirely in one enterprise there are many areas where one enterprise predominates. Eastern Ontario, along the St. Lawrence River from Kingston to the Quebec boundary is essentially a dairying area, producing both for liquid milk and cheese factory trade. There are many cheese factories operating in this region, and the abundance of cheap rough pasture has led to the development of an industry based on the selling of summer milk to cheese factories. The orchard areas of the Province chiefly border the north shore of Lake Ontario and to some extent that of Lake Erie. There is also a smaller apple producing area south of Georgian Bay. The counties of Essex and Kent have become highly specialised in the production of cash crops, chief of which are tobacco, corn for husking, sugar beets, beans, potatoes and general garden produce. Wheat, coarse grains and livestock are also produced in this area. The counties of Lambton, Middlesex and Elgin, lying east of Essex and Kent, make up more of a general farming area, although some specialised crop production does take place, also more livestock is raised in these counties. Huron, Bruce and Grey Counties bordering Lake Huron and Georgian Bay constitute a mixed farming area with beef cattle production predominating. Sheep and swine are also important in these counties. The interior counties, constitute a section where swine production is particularly important along with both beef and dairy cattle. The county of Oxford has become the most concentrated area of dairy farming in the Dominion and specialises in liquid milk, chiefly for the Toronto market. The county of Norfolk has undergone a rather rapid change in its type of agriculture in the past twenty-five years. From a general farming area it has become widely known for the production of flue-cured tobacco, canning crops and apples. The Niagara Peninsula especially Lincoln County, is noted for the production of fruits, chiefly peaches and grapes. This area has a mild winter and a long growing season. The southern portion of the counties of Halton, Peel and York bordering Lake Ontario are highly developed for the production of truck garden produce and small fruits for the Toronto market. Other sections of Southern Ontario practice a general type of farming with some dairying, swine and poultry production, as well as crop production. An area of concentrated potato production has developed in Simcoe county around the Town of Alliston.

In the Upper Ottawa Valley there has been some tendency to stress beef cattle production in parts of Carleton and Renfrew counties, although the farm organisation is often general livestock and crop production. The situation is quite similar in Victoria, Muskoka, Nipissing and Peterborough, although some special dairying is practised in the Peterborough-Lindsay area. Farming areas have developed in the more northerly sections of Ontario around Sudbury, New Liskeard, Cochrane, Sault Ste. Marie, Fort William and Rainy River. These areas are relatively new and the farming is chiefly of a general nature with pioneering still being carried on in many instances.

The soils of the Prairie Provinces are generally quite fertile. The climate is more extreme than in any other agricultural area in Canada. Rainfall is limited in a few areas being as much as 20 inches per year, and more generally 16 inches per year. The precipitation is usually well distributed during the growing season, but damage from drought and hot winds is not infrequent. The frost-free period is fairly short. In the summer, days are usually hot and nights cool, favouring the production of high grade hard spring wheat, the major product of the farms of the area.

Over two-thirds of the field crop acreage of Canada is concentrated in the three Prairie Provinces and most of it is seeded to grain crops with wheat predominating. Generally speaking, the specialised wheat areas cover the southern short-grass plains from the Red River Valley in Manitoba to the foothills of Alberta and attain their greatest width in central Saskatchewan. In the park belt lying mostly north of this region, the growing of coarse grains and livestock raising take an important place in farm organisation. In south-western Saskatchewan and southern Alberta, cattle and sheep raising are dominant enterprises.

The type of agriculture is still undergoing changes and in recent years coarse grains for livestock feeding have been gaining at the expense of wheat. All through the southern and central parts, however, wheat is still the most important grain crop. Wheat production predominates with coarse grains, cattle and hog raising becomingly increasingly important. Farther east, near Winnipeg, dairying is more important as well as hog production. Around the City of Winnipeg, poultry raising, truck gardening and potato production are important farm enterprises. Potato growing is especially concentrated north of Winnipeg. Farther north the farming is more general with crop and livestock production. In the north-west of Manitoba near Dauphin Lake, beef cattle have become important. In the extreme north-west of the Province, a general type of farming is carried on with cash grains, dairy cattle and hogs as the chief revenue producers.

In Saskatchewan and Alberta, farming is on a large scale. The average size of the farm is around 470 acres.

In Saskatchewan wheat is still the most important crop, but cattle and sheep ranches are also found in the south-west. Creameries operate in many parts of the province. Alfalfa seed is the most important source of income for farmers around White Fox and Nipawin. Near Melfort mixed farming, with beef cattle and hogs, is practised and in fact is more general through the Park Belt than many realise.

The open plains area of Saskatchewan is particularly adapted to large scale mechanised methods for wheat growing, and this crop predominates in a large section of the Province. Most farms in this area have sufficient livestock for farm needs, but there are few farms which make a speciality of anything but wheat. There is a small area in central western Saskatchewan where flax-seed production was quite important. In Eastern Saskatchewan there is a more general type of farming with coarse grains, dairying and hogs becoming more important in relation to wheat. The more northerly section of the Province, known as the Park Belt, is less adapted to wheat growing than the open plains area and here coarse grains are grown extensively for feeding to livestock, chiefly hogs. There are a number of dairy farms close to the City of Saskatoon. Farther north the land is still being taken up by settlers and farming is of a pioneer type. In the south-west corner of the Province, bordering Alberta, there is an area of ranch country, where both cattle and sheep ranches are located.

The main wheat area of Alberta occupies the central part of the agriculturally developed section of the Province, extending from the Saskatchewan border westward, but not quite into the foothills of the Rocky Mountains. In the southern area of Alberta cattle and sheep ranches cover substantial areas, but wheat is also grown in this section. Irrigation has been introduced in Alberta in two areas, one from Raymond to Taber and further north in the Brooks, Bassano and Vauxhall section. On the irrigated lands sugar beets, alfalfa and general crop production is typical of the agriculture. There is a strip of cattle ranching country along the western edge of the agricultural section of Southern Alberta in the foothills of the Rocky Mountains.

Coarse grains are important over a large section of Western and Northern Alberta, and the number of hogs produced in this area places Alberta on an equal status with Ontario for hog production. Wheat growing is, however, still carried on extensively in this area. The most northerly section of Alberta to be opened up for settlement is known as the Peace River District. Parts of this area are still in the course of development, and general farming along with wheat production and hogs, is typical of this new area. Horse ranching is carried on to a considerable extent in Alberta, but these ranches are not confined to any particular area of the Province.

The agriculture of British Columbia is generally divided between mountain valleys and the coastal plains. The climate is particularly mild where influenced by the Pacific breezes. Rainfall is abundant on the coast and lower mainland but is much less in the inter-mountain valleys of the interior.

A limited amount of farming is being carried on in the south-eastern section of Vancouver Island near the City of Victoria. Farming here is quite highly specialised in the production of small fruits, vegetables, poultry, flower and garden seeds and dairy products. On the mainland a specialised farming area is located in the Lower Fraser River Valley near Vancouver. This area is especially noted for dairy production and poultry and eggs. Market garden truck, small fruits and potatoes are also produced in substantial volume in this area. North of Vancouver, in the Howe Sound Section, poultry products, market garden truck and potatoes are the main products of the farm. The interior of the Province has a very different climate to that which exists on the west coast. On the plateaus and in the more northerly valleys a good deal of cattle ranching is carried on. The most noted area of agricultural production in British Columbia is the Okanagan Valley in the southern interior.

In recent years, settlement has been going on in the Peace River Block of British Columbia adjoining a similar area in Alberta.

Farm Organisation in Eastern Canada

Farm organisation has to do with the business set-up of farms—the way the farmer combines land, labour and capital, and the results of such combination. The organisation of farms varies greatly, depending upon location, topography, the type of farm and the kind of soil a farmer has to work with.

The size of farms in terms of total area has been increasing in Eastern Canada on a provincial basis. Prince Edward Island has the smallest farms. The census reported that in 1941, the average size of farm in that Province was 95·5 acres; in Nova Scotia it was 116·9 acres, and in New Brunswick farms averaged 125·1 acres. The average sizes of farms in the central provinces are about the same—for Quebec 125·1 acres and for Ontario 124·8 acres. The census records a reduction in the percentage of farms under 50 acres in all eastern provinces for the period between 1921 and 1941. In the size group 201 to 229 acres, higher percentages were reported in all eastern provinces except Quebec where there was a little change. The percentage of farms over 300 acres is small in the east.

The majority of farms in Eastern Canada are owner operated. Ownership being generally regarded as the goal towards which the farmer should strive. The figures on ownership, of course, give no indication of the equity which the farmer may possess in his farm. Many farms are heavily mortgaged. In 1921 owner-operated farms represented 84·4 per cent of the total number in Ontario and 95·5 per cent in New Brunswick. This situation had changed somewhat by 1941 when 78·6 per cent of Ontario farms were owned. In all the other eastern provinces, owned farms represented a little more than 92 per cent of the total number.

The higher percentage of tenants in Ontario reflects somewhat higher capitalisation and greater mechanisation as well as a greater area and variety of cash crops such as tobacco, sugar beets, corn and beans. Share tenancy of dairy farms has been growing. Cash tenancy is more popular in the east than in the west. In New Brunswick and Prince Edward Island, tenant farms are most common in the potato growing areas. In Nova Scotia rental of apple orchards would explain much of the growth of tenancy in recent years. In Ontario company ownership of tobacco farms and tenant operation would explain some of the growth of tenancy. But in all provinces, the need for separation of function in provision of capital for land and buildings and operating capital for livestock and crop production would be the chief cause of the rise in tenancy in recent years.

Very few farms in Eastern Canada are operated by managers. In 1941 less than one per cent of the farms were run by managers. There has been an increase in the number of part-owner part-tenant farms. This represents an effort to increase the size of the farm area and the farm business. It probably results for two main causes. First to enable efficient utilisation of mechanical equipment and secondly to provide more feed or a cash crop. All in all, the percentage of farm owners who rent additional land just about doubled between the years 1921 and 1941.

The census provides a basis for a general summary of agriculture, however, farm organisation varies so widely with type of farming that only an outline of the organisation of dairy farms of a few types will be made.[1] Even here it is not possible to present data which is comparable in all respects. The difference in organisation of a pioneer farm and a fruit or vegetable farm in the Niagara or Leamington districts in Ontario will be more or less obvious. These types, of course, represent the extremes. The acreage of improved land per farm will indicate the problem to some extent. In Prince Edward Island, the figure is 60·3, Nova Scotia 24·6, New Brunswick 38·3, Quebec 63·7 and Ontario 75 acres. Farms with less than 40 acres improved land and producing extensive crops cannot be rated as highly commercial undertakings. It is obvious that much of the land in farms is either forest or waste.

Many of the farms in Eastern Canada are not commercial farms at all, they are either self-sufficient or part-time farms. Self-sufficient or part-time farms do not represent a very large investment of capital. The crop acreages and numbers of livestock are not large. Cash income from these farms is small. In contrast with this type one may have a large farm utilising tractors and tractor equipment, high producing cows and high producing varieties of crops involving considerable outlay for labour.

It may be pertinent to say that few farms in Eastern Canada are single enterprises. They do not represent what some describe as mono-culture. Dairy farmers may ship whole milk to a distributor in a city all year round. Some ship to a cheese factory from May to November and then ship whole milk during the winter months when the supply is scarce. Other cheese factory suppliers dry up their cows and carry them through the winter on little better than maintenance diets. Some dairymen ship to condenseries when condensed or evaporated milk is produced. Cream is produced mainly in mixed farming areas and often in herds which are more of a beef type than dairy. Producers of beef cattle sell hogs, poultry and cash crops. Apple growers may have incomes from livestock, small fruits or vegetables. Producers of milk, beef, hogs, poultry, fruit or vegetables may secure the larger part of their income from such sources but the general rule in Eastern Canada is to diversify sufficiently to spread the risk of failure and to operate on an all-year basis, thus raising the total volume of business for the year.

In building up a successful business, good farmers pay particular attention to four main factors. The first of these is rates of production of livestock and crops; second, efficient use of labour; third, efficient use of capital including farm implements; and, fourth, a sufficiently large output—for without this, low operating costs cannot be established. These factors are related and must be combined to develop a successful farm business.

Rates of Production.—High rates of production of both livestock and crops have an important bearing on farm returns. In a study of dairy farming in Ontario in which 334 farmers provided statements, there were 80 who had cows producing less than 6,000 pounds of milk during the year 1937-38. On these farms, labour earnings averaged $584, while on 65 farms on which production per cow was 9,000 or more pounds per year, labour earnings were $1,091—a difference in income of more than $500 per year.

Crop yields above average add materially to farmers' incomes. For example: among the 334 Ontario dairymen already referred to, there were 25 having crop yields more than 20 per cent below average, and whose labour earnings were $280. On the other hand, 221 farmers whose crop yields were 20 per cent or more above average, obtained labour earnings of $1,000 for the year. High crop yields are secured by choosing high yielding varieties of crops adapted to the locality, by timely and thorough cultivation, by proper control of weeds, by suitable rotation of crops, by the application of manure, and by the judicious application of commercial fertiliser to increase fertility and balance soil deficiencies. Some farmers are so situated that a good deal of grain may be grown but others must emphasise forage crops and purchase greater amounts of feed grain and concentrates.

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[1] For which information is available from special surveys carried on by the Economics Division in the Dominion Department of Agriculture and co-operating provincial agencies.

Labour Efficiency.—Fifty dairymen in Ontario had receipts of $900 or less per man employed and the operator's labour earnings on these farms averaged only $171 per year, but on 114 farms where receipts per man were $1,500 or more, the operator's labour earnings were $1,370.

Efficient Use of Capital.—It has been found that on a profitable farm the annual receipts should equal capital invested in about 4 years. If it takes longer, it is probable that the farm has been over-valued or that capital in the form of livestock and equipment is of inferior quality or that it is badly handled. Ontario dairymen whose farm receipts were only sufficient to equal capital invested in their farms in 6 or more years, had labour earnings of only $279 per year compared with $1,305 on those farms where yearly receipts equalled capital in 4 years or less.

Size of Business.—Important as are rates of production, efficient use of labour and such like, there is another factor which is always of great importance, namely size of business. In dairy farming, the importance of this factor is shown by the experience of 69 farmers who sold 70,000 pounds of milk each year and obtained labour earnings of $415, whereas 112 dairymen who sales averaged 130,000 pounds of milk secured labour earnings of $1,153. In the former group, the cost per 100 pounds of milk was 36 per cent higher than was the case in the latter group.

While dairy farms in Ontario have been used to illustrate the foregoing points, these factors are corner-stones of a successful farm business, both in the East and on the Prairie farms of Western Canada.

Farm Organisation in the Prairie Provinces

Manitoba, Saskatchewan and Alberta, commonly known as the Prairie Provinces, cover an area of approximately 753,000 square miles. The agricultural lands, located in the southern part of the prairie provinces, include 120 million acres, about two-thirds of the occupied farm lands of Canada and are used chiefly for grain production. The choice of crops is severely restricted by nature and remoteness from markets.

Although wheat production occupies the most prominent place in prairie agriculture, the production of other grains, livestock and livestock products are important in varying degrees in many areas. Some cattle are raised on most farms and in the south-western part of the prairie there are large scale ranches where many hundreds of head are grazed on native grass. Hogs are produced on a large proportion of farms and in some regions a considerable portion of the farm income is derived from this enterprise. Dairy and poultry products are supplied by prairie farmers in sufficient quantity to export; vegetables and even some small fruits are raised to supply home needs.

While four-fifths of all the farmers in the three Prairie Provinces grow some wheat, the central plains area of Saskatchewan and Alberta is the scene of the most complete specialisation in wheat production. Here farmers grow as much wheat as possible because it is the most efficient utiliser of the scanty and erratic moisture supplies, and least subject to damage from the hot drying winds. When conditions are unfavourable for wheat they are usually more unsuitable for other crops. Within the central plains, specialised wheat producing areas include about 30 per cent of the farms, 40 per cent of the farm land, and about half of the total wheat acreage of the Prairie Provinces. This general area includes many types of soils which range from clays and silts to sands and gravels.

The most desirable soils for wheat production within the central plains are the clays, clay loams and silty clay loams of level topography. Such soils are usually free from obstructions and waste, and permit field work with large scale machinery. They account for about one-sixth of the total land of the central plains wheat farming region. The largest and most highly mechanised farms are located on these lands.

Approximately two-thirds of the central plains area consists of soils of the loam types. About one-eighth of these is of rough topography and finds its best use in grazing. Loam soils are ordinarily fair to good wheat lands but show considerable differences in character, varying from the uniform, level and stone-free area to those that are marginal and sub-marginal for grain farming. The proportion of the farms on loam soils which is unsuitable for cultivation is about twice that prevailing on the clay soils.

The general organisation of farms specialising in wheat production is quite simple. The proportion of the total capital accounted for by the farm land varies with the class of soil and the size of farm, but this item is by far the most important one in the capital structure of the owner-operated farms. Investments represented by buildings rank second in importance. The character of the buildings on prairie farms is usually plain and unattractive although this is not necessarily so where successful farming has been experienced over an extended period. The relatively high cost of building materials, severe winters and other factors result in farm homes being limited in size and compact in design.

The machinery and equipment on grain farms may properly be considered more important to successful operation than on most types of farming. Increased mechanisation is resulting in progressively larger investments in such equipment which, in general, are accompanied by decreasing numbers of horses and consequently a declining interest and investment in livestock.

The utilisation of land emphasises wheat as the major cash crop, but includes with it such limited acreages of oats, barley and forage as are needed for the work stock and the few animals kept for home use. Wheat occupies about two-thirds of the total land in crop. Summerfallow is the recognised mainstay and basis of this system of farming, and about one-third of the improved area is in fallow each year. The crop commonly following summerfallow is wheat. Although the average size of farm is a three-quarter section (480 acres) the advantages attending the section farm, include a larger proportion of the total acreage in wheat and somewhat fewer horses to care for, and also the ability to use mechanical power efficiently.

During the past decade or so there have been many attempts to lower the operating costs of wheat farms, and numerous innovations in machinery and equipment have resulted. The one-way disc is gradually displacing the plough on some of the larger farms on lands free from stones and to it has been added a seeder-box to combine the tillage and seeding operations under certain conditions.

Surface-working of land rather than ploughing is increasing in practice with the objective of establishing a trash cover to minimise wind displacement of soil during the fallow season. This is a sharp contrast with the bare fallow of a decade earlier. The prevailing practices are based on recommendation to reduce the amount of work done on the land to the minimum necessary to control the weeds. For this work one of the most important implements is the duckfoot cultivator.

Harvesting and threshing operations have also undergone radical transformation during the last twenty-five years. The large scale threshing outfits, with the cook cars and cabooses to accommodate the gangs which operated for several months each season over extended areas, have disappeared. The self-binder is still very much in evidence and cuts most of the grain crop. The threshing machine still handles the bulk of the grain but these are of smaller sizes than in former days. Combined harvester-threshers have gradually come into the picture and vary considerably in size and design. During the period 1935-40 there was an increase of about 1,000 combines on the farms of the Prairie Provinces. In the areas of short crops the construction of header-barges has been steadily progressing, and as successful models are evolving the adoption of this equipment is being extended.

Surrounding the central plains areas of specialised wheat farms is a belt of territory varying considerably in width which is frequently referred to as the park belt. This includes a large proportion of the agricultural land of Manitoba, together with a considerable extension beyond its westerly boundary into Saskatchewan, and also a substantial slice of the northern portion of the agricultural area of Saskatchewan. This area is continued and expanded in Central Alberta and then tapers off as it bends southward, east of the Rocky Mountains to the International Boundary. Much of the areas in the Peace River blocks of Alberta and British Columbia consists of lands similar in character to those included in the park belt. Natural conditions vary considerably over this extensive area and to indicate regional differences adequately would require descriptions of many types of farming.

The soils of the park belt are chiefly black in colour and the general area is sometime designated the " Black Soil Zone." Over most of the park belt moisture is seldom a limiting factor. While the total precipitation may not be greater than on the central plains its actual utilisation is more effective as average temperatures of the park belt are lower than those of the central plains and hot drying winds are far less common. Summerfallow for the purpose of conserving moisture has limited significance but the practice is considered to have merit for controlling some of the persistent weeds, consequently farming practices throughout these regions usually include around one-quarter or one-fifth of the improved land in fallow. The weed problem has been steadily increasing over most of the park belt, of which perennial sow thistle and wild oats constitute the principal infestation. While forage crops can be grown readily natural pasture is generally of limited value. The maintenance or improvement of the fertility of the soil is also a matter of concern in many areas and the use of commercial fertilisers is increasing. The adoption of cropping systems which include soil improving crops is not generally practised but some are beginning to show a practical interest in this subject.

Farms in the park belt are considerably smaller in average area than those of the central plains and average one-half section (320 acres). To secure a modest livelihood from farming these lands the half-section farm is the minimum advisable. While quarter-section farms are somewhat more numerous than half-sections and far more numerous than those of any other size, many of these are in process of development and may be expected to be combined with other land to form efficient units. Many are subsistence farms on the pioneer fringe of settlement.

There is a relatively large amount of land not adapted for agricultural use in the superior soil-belt soils. In Manitoba about 63 per cent of the total area of the farms is reported as improved and used in cultivations, whereas, in Saskatchewan and Alberta about 52 per cent is indicated. Regional studies indicate about thirty per cent of the farm is the average for native pasture, wood lots, farmsteads, and waste. The actual use of the improved land is by no means uniform but of such land wheat occupied about one-half, coarse grains and forage about one-third, and summerfallow about one-sixth. The opportunity of park belt farmers to keep a large proportion of the improved land in production each year is distinctly advantageous. The average yields of grains and forage are usually somewhat higher per acre than on the central plains, but these better yields are in part offset by grades of wheat below those of the specialised wheat region, with farm prices correspondingly lower.

The use of improved lands varies in each province. About one-third of the cultivated land is used for wheat in Manitoba, compared with around 40 per cent in the other two provinces. While the acreage of oats per farm varies, within the different sections of the park belt of each province, the averages for each of the three provinces within the park belt are about 17 per cent of the cultivated land. The smaller proportion of the total cultivated land used for wheat in Manitoba is offset by a large barley acreage and somewhat more cultivated hay and forage crops.

The park belt farms have greater uniformity of production than prevails in the central plains. This advantage is a matter of decided significance to the farm operator. A comparison of financial summaries for section farms in the two regions shows little significant difference. Both are satisfactory but the returns vary much more frequently from year to year on the open plains, specialised wheat farms. Enterprises based on the utilisation of uncultivated land are limited in scope and produce relatively little revenue. The average yields of grain and forage per acre are also noticeably lower on average park belt farms than on the superior soils. Sales of grain account for about four-fifths of the cash income, with wheat bringing about two-thirds of the total cash receipts of the farm. Farm expenditures are generally restricted to the funds available and those of the average farms of the park belt are from three-quarters to four-fifths of those on the superior soils. The rate of return on the farm capital is decidedly low on the half-section farm but for farms of twice the size results are more nearly in keeping with those of the better soils.

Under competent management a farm of good size in most parts of the park belt will provide a reasonable standard of living for the operator and permit a modest and relatively uniform return for his labour and investments. Despite freedom from the extreme variations in physical production which are experienced in the central plains, violent fluctuations in the farm prices of agricultural products have been experienced from year to year throughout the Prairie Provinces and have added many problems to the management and financing of all types of farms.

Farm Organisation in British Columbia

British Columbia is unlike any other province in the Dominion and, for this reason, the organisation of farms in that province is given individual treatment. Only 1·3 per cent of the land area of the province is in farms and the expansion of agriculture to a scale comparable with that of the more open country in the other western provinces is not possible.

The average size of farms as recorded by the 1941 census was 157 acres of which 33·9 acres was improved land. There are many small farms near Vancouver and in the Fraser Valley. Apple and soft fruit farms on irrigated land in the Okanagan Valley are small too. Unlike Nova Scotia and New Brunswick, much of these farms is under cultivation but the small proportion of improved land in farms in other parts of the province shows that in many cases considerable rough and forested land makes up the balance.

A little less than 80 per cent (79·6) of the farms are owner-operated, 10·92 per cent are rented and 8·46 per cent are part-owned and part-rented. Very few farms are operated by managers. Land values in the Okanagan and on the Lower mainland are quite high.

Field Crops[1]

During the past half century there has been a tremendous increase in the area sown to field crops. The opening up of the Prairie Provinces and the stimulus to production induced by the First World War were principal factors responsible for the increase of over 300 per cent in field crop area between 1891 and 1941. The area of field crops was approximately 63 million acres in 1947. Wheat and coarse grains form the major part of the total field crop acreage. More than 90 per cent of the wheat is grown in the provinces of Alberta, Saskatchewan and Manitoba, while over 70 per cent of the coarse grains—oats, barley, rye and flax—are grown in these three provinces. Hay crops, mixed grain and corn are the most important crops in Ontario and Quebec, whereas turnips and potatoes are the important crops in certain sections of the Maritimes. The production of Indian corn is relatively small in Canada and the area is confined mostly to three or four counties in western Ontario.

Wheat.—The economic development of Canada is closely interwoven with the production of grain, notably wheat. Wheat has been aptly described as " the economic fairy of the industrial and commercial life of Canada having built practically the whole economic structure of the Prairie Provinces."

Wheat production has made Canada one of the biggest bread-baskets in the world. In 1881 only 2·4 million acres were planted to wheat, yielding 32 million bushels. It was during the first World War that acreage and production of wheat expanded most rapidly, particularly in the three Prairie Provinces. The wheat acreage in Canada in 1914 was just over 10 million acres but by 1919 it exceeded 19 million acres. The production of 393 million bushels in 1915 saw the Prairie Provinces produce an average of 26 bushels of wheat to the acre, a record which still stands. Acreage continued to expand between the two Great Wars. By 1940, 28·7 million acres were sown to wheat, giving a yield of 540 million bushels. This yield was exceeded only in 1942. Other grains have shown similar, though less rapid expansion in production. The gross value of wheat is almost as great as the combined values of oats, barley and rye. Wheat plays an infinitely greater role in export trade than do the other cereals. As an exporter of wheat, Canada actually stands in a class by herself.

The rise to prominence of Canada as a wheat producer is due largely to the fact that nature has seen fit to give the great prairie sections of this country the sort of climate and type of soil that make for quality as well as quantity. The quality of Canadian wheat has long since come to be recognised as the standard of excellence in the Old Country markets where " strong " wheats are sought for blending purposes.

Another factor which has contributed enormously in bringing Canada to the very forefront as a wheat producer is to be found in the work of the plant breeder. The varieties available to the farmer in the early days required too long a period to mature to be grown with any degree of safety over a very large proportion of the area now devoted to wheat growing and as a result any appreciable expansion, especially in a northerly direction, was exceedingly risky. But early-maturing varieties were not enough, for nature launched another challenge and the dominion of man over his hard won wheat lands was threatened by another enemy. And that enemy was the dread disease commonly known as rust. Today, because of the work of the plant scientist the hazard of rust appears to be very largely a thing of the past. The future expansion of wheat production in Canada will depend, in no small measure, upon the success of the plant breeder in developing better varieties. The advent this year of a new wheat variety capable of resisting the wheat stem sawfly promises to be a development of great and far-reaching significance.

Cereals Other Than Wheat.—While wheat remains the most important single grain by reason of its almost universal use as human food, oats and barley and, to a lesser extent, rye hold first place as a group from the standpoint of animal nutrition. They do not play a very important part in international trade as they are largely consumed in Canada by farm animals.

Oats.—In feeding value for livestock, oats hold a very high place. They actually constitute the basis of most of the grain feeds used in Canada and may be regarded as our most important feed grain.

As human food, oats, chiefly in the form of porridge, have always enjoyed wide popularity as a nourishing and palatable food.

New rust resistent varieties, now being introduced, are destined to make oat-growing in Canada a safer and more profitable occupation and thus to place the crop as such on a still higher level among our great natural assets.

Barley.—In the Prairie Provinces barley is preferred to all other crops as a so-called " cleaning crop " in the fight against weeds. Maturing early, the varieties commonly grown may be sown relatively late without too great risk from frost. Recently it has been found that certain early ripening varieties, sown early on summer-fallow in areas particularly subject to drought, may escape the full impact of the latter and yield reasonably good returns. This discovery may prove of very great value to the area concerned. It may also have the effect of increasing the area seeded to this crop in these sections. As a hog feed, barley holds first place in the opinion of most Canadian authorities. It also is well liked when mixed with oats as a cattle food. During the crop year 1942-43 it is estimated that approximately 145,000,000 bushels of barley, in one form or another, were fed to livestock in Canada. During the same period about 33,000,000 bushels were shipped to the United States but this presumably was used for malting purposes.

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[1] The next three sections are based mainly on a series of articles appearing in the *Agricultural Institute Review*, Ottawa, May 1946, and written by Frank Shefrin.

The malting industry of Canada also provides a market for substantial quantities of certain barley types. In the year 1945-46 it used about ten million bushels.

Rye.—Rye is a relatively unimportant though useful crop in Canada. It is valued chiefly as a cover crop in orchards and in tobacco districts in the east while in western Canada it is grown as a cash crop under conditions where other cereals could not be expected to thrive.

Both fall rye and spring rye are grown but the former occupies about twice the acreage of the latter.

The Milling Industry.—Wheat production in Canada is inseparably linked with the milling industry. The latter goes back to the early days of pioneer settlement when wheat was grown to furnish flour for succeeding generations of young Canadians. As wheat production expanded, so did milling facilities until, in course of time, more flour was produced than was required for home consumption. Flour markets abroad, accordingly, were sought and soon the foundation was laid for a large and flourishing export trade in flour. By 1928 the number of flour mills in Canada had reached 260 with a daily capacity of 121,000 barrels. Owing to adverse conditions in the grain trade, exports for the next ten years fell off rapidly reaching the low level of 3,911,886 barrels in 1938. In spite of this, however, Canada continued to be one of the world's largest flour exporters.

During the Second World War, an enormous demand from Britain and other allied countries for "all the flour that could be produced," stimulated maximum production with the result that exports increased rapidly. In the crop year 1946-47 17·7 million barrels of flour were exported out of a total Canadian production of 28·5 million barrels. The total value of the products of the flour and feed industries amounted to $294,520,119 in 1945. Of this, flour accounted for $139,810,539. Chopped feeds, to the value of $48,318,469 produced by some 1,050 establishments came next, followed by shorts and middlings valued at $13,142,411. Prepared stock and poultry feeds that year were valued at $63,599,742 while bran reached a valuation of $8,668,812.

In appraising the national importance of cereals, other things must be considered besides the mere value of the goods produced. The capital employed in the milling and feed industries (in 1943) was approximately $70,869,815 while the total cost of all materials, including containers, amounted to $169,488,532. Clerical staffs and wage earners employed in connection with the two industries in 1945 numbered 10,998 persons. The pay roll in 1945 reached $16,886,671.

The Baking Industry.—The baking industry of Canada also has become big business. Before the war it ranked third in number of persons employed and sixth in the amount of salaries and wages paid. In 1945 about 2,860 concerns were involved with a capital investment placed at over $58 million. The number employed reached a total of 29,045 persons calling for a pay roll of $38,328,474; the selling value of the baked goods produced amounted to $132,518,212.

Other Facilities Involved.—In addition to the milling and baking industries involved, other large enterprises enter the picture. First of all, we have the huge plants which have been built up for the manufacture of agricultural implements—the machines used in cereal production. Then follow the transportation facilities, including elevator accommodation with all that they imply in the way of capital investment and in furnishing employment to large numbers of people. On December 1, 1940, the total licensed capacity of grain elevators is given as 423,000,000 bushels. By December 1, 1947, the total elevator capacity in Canada

ACREAGE OF CEREAL GRAINS AND PASTURE IN CANADA IN 1941[1]

Province	*Cereal Grains (Acres)*	PASTURE			
		Improved (Acres)	*Natural (Acres)*	*Total Acres*	*Percentage Improved of Total*
Prince Edward Island	186,597	237,062	80,604	317,666	74·63
Nova Scotia	90,974	175,236	731,801	907,037	19·32
New Brunswick	231,996	296,776	364,493	661,269	44·88
Quebec	1,989,081	2,519,354	2,090,823	4,610,177	54·65
Ontario	4,732,366	3,237,865	3,879,182	7,117,047	45·49
TOTAL, EASTERN CANADA ..	7,231,014	6,466,293	7,146,903	13,613,196	47·50
Manitoba	5,747,432	455,487	4,823,515	5,279,002	8·63
Saskatchewan	19,120,163	783,901	19,815,940	20,599,841	3·81
Alberta	11,333,459	625,578	18,745,520	19,371,098	3·23
British Columbia	215,603	171,614	1,846,358	2,017,972	8·50
TOTAL, WESTERN CANADA ..	36,416,657	2,036,580	45,231,333	47,267,913	4·31
TOTAL, ALL CANADA ..	43,647,671	8,502,873	52,378,236	60,881,109	13·97

NOTE: Forest Reserves used as pasture in British Columbia are not included.

[1] Agricultural Census, 1941.

PRODUCTION OF SPECIFIED AGRICULTURAL COMMODITIES IN CANADA, 1941-46, WITH FIVE-YEAR AVERAGES, 1935-39

Commodity		*Average* 1935-39	1941	1942	1943	1944	1945	1946
Wheat ..	'000 bu.	312,400	314,825	556,684	284,460	416,635	318,512	413,725[2]
Oats	„ „	338,072	305,575	651,954	482,022	499,643	381,596	371,069[2]
Barley ..	„ „	88,882	110,566	259,156	215,562	194,712	157,757	148,887[2]
Flaxseed ..	„ „	1,509	5,788	14,992	17,911	9,668	7,593	6,403[2]
Potatoes ..	„ cwt.	38,631	39,052	42,882	43,541	49,409	35,986	47,963[2]
Sugar beets ..	„ tons	518	712	721	472	564	619	734[2]
Total milk ..	„ lb.	15,282,097	16,549,902	17,488,590	17,518,973	17,000,000	17,626,772	16,937,028[1]
Creamery butter	„ „	254,773	285,848	284,591	311,709	298,777	293,811	271,366[1]
Factory cheese	„ „	119,925	151,866	207,431	166,274	181,883	188,729	147,320[1]
Eggs	„ doz.	219,523	244,468	280,688	315,608	360,948	373,952	346,841[1]
Apples ..	„ bu.	14,560	10,725	12,982	12,854	17,829	7,635	17,685[1]
Honey ..	„ lb.	35,746	33,221	28,049	39,492	36,264	33,020	23,975[1]
Maple products	„ gal.	2,684	2,276	3,251	2,299	3,090	1,530	2,144[1]
Wool	„ lb.	16,022	15,254	16,477	17,818	19,279	19,626	19,001[1]

SOURCE: [1] Quarterly Bulletin of Agricultural Statistics, Ottawa, Dominion Bureau of Statistics, Jan.-Mar. 1947.
[2] Third Estimate of Field Crops of Canada, Ottawa, Dominion Bureau of Statistics, Nov. 14, 1947.

PRODUCTION, IMPORTS AND EXPORTS OF WHEAT FOR CANADA, 1930-46

NOTE.—Wheat flour has been converted into bushels of wheat at the uniform average rate of 4½ bu. to the barrel of 196 lb. of flour.

Crop Year	*Production*	*Imports of Wheat and Flour*[1]	*Exports of Wheat and Flour*[1]
	'000 *bu.*	*bu.*	*bu.*
1930 ..	420,672	244,221	258,693,887
1931 ..	321,325	216,328	207,029,555
1932 ..	443,061	173,014	264,304,327
1933 ..	281,892	413,165	194,779,875
1934 ..	275,849	896,674	165,751,305
1935 ..	281,935	291,510	254,424,775
1936 ..	219,218	403,396	195,223,653
1937 ..	180,210	6,138,819	92,957,047
1938 ..	360,010	1,891,177	160,034,183
1939 ..	520,623	444,368	192,674,368
1940 ..	540,190	122,036	231,206,246
1941 ..	314,825	29,103	225,828,434
1942 ..	556,684	3,022	214,700,902
1943 ..	284,460	594,000	343,755,320
1944 ..	416,635	556,000	342,945,515
1945 ..	318,512	102,000	340,105,510
1946 ..	413,725	16,000	242,542,925

[1] Imports and exports are for the year beginning August 1 1939 to 1946.

SOURCE: Quarterly Bulletin of Agricultural Statistics Agricultural Division, Dominion Bureau of Statistics.

had reached 482,000,000 bushels. Country grain elevators increased from 452 in 1900 to more than 5,500 at the present time. From the country elevators grain is carried by railway cars to terminal elevators at the head of the Lakes (Ft. William and Port Arthur) and on the Pacific Coast. Elevator capacity at Ft. William, Port Arthur, Georgian Bay and lower lake ports, on the St. Lawrence River, and at St. John, N.B., and Halifax is about 159 million bushels. Pacific coast terminal elevators can take care of about 17,000,000 bushels and the elevator at the Port of Churchill 2,500,000 bushels. These terminal elevators are ample for the handling of grain to eastern flour and feed mills and for export.

ACREAGES OF PRINCIPAL FIELD CROPS IN CANADA, 1941-46, WITH FIVE-YEAR AVERAGES, 1935-39

Crop	*Average* 1935-39	1941	1942	1943	1944	1945	1946
	'000 *ac.*	'000 *ac.*	'000 *ac.*	'000 *ac.*	'000 *ac.*	'000 *ac.*	'000 *ac.*
Wheat ..	25,595	21,882	21,586	16,850	23,284	23,414	24,076
Oats ..	13,246	12,266	13,782	15,407	14,315	14,393	12,075
Barley ..	4,291	5,304	6,973	8,397	7,291	7,350	6,259
Flaxseed	307	996	1,492	2,948	1,323	1,059	841

SOURCE: Quarterly Bulletin of Agricultural Statistics, Dominion Bureau of Statistics, Ottawa, Jan.-Mar. 1947, and 1946 figures from Third Estimate Field Crops of Canada, Ottawa, Dominion Bureau of Statistics, Nov. 14, 1947.

In 1945-46 249,528 carloads of grain were inspected and 29,529 re-inspected by government grain inspectors. This gives some idea of the railroad transportation facilities required for the marketing of Canada's grain in its natural state.

In 1944, about 400 million bushels of grain, nearly three-quarters of which was wheat, were shipped by lake boats out of Ft. William and Port Arthur. One-half of this grain was landed at Canadian ports and about one-half in ports of the United States. In the crop year 1946-47 about 160 million bushels of wheat were used in the domestic market and about 243 million bushels were exported. Shipments in 1946 were down to 240·2 million bushels.

Forage Crops.—Forage crops have four main functions, (1) the provision of feed for livestock, (2) the provision of cash crops, chiefly in the form of seed, (3) soil conservation, (4) proper land use. Large areas, especially in the four western Provinces, unsuited for the production of cereal crops, produce much native hay and pasturage.

In order to meet the requirements of the livestock population a great amount of feed in the form of hay, pasturage, silage, roots, etc., is required. Grasses and legumes as hay and pasturage constitute the bulk of forage produced. Other crops such as corn, grain hays, sorghum, millet, roots, etc., are grown more or less in certain Provinces, and add greatly to the total amount of feed produced. In addition to hay crops grown on cultivated lands, a great amount of native hay is harvested every year, especially in the four western Provinces where many of the ranches depend chiefly on hay of the native grasses as winter feed.

While in eastern Canada nearly half of the pasture is on cultivated land, in the four western Provinces, over 90 per cent is native pasturage. The acreage of improved pasture in the west is increasing; this is due largely to the use of crested wheat-grass and the development of irrigation projects. However, the greater part of the feed consumed by horses, cattle and sheep in western Canada is provided by native pastures.

Another important type of pasture is that known as "Cover Crops." This practice was developed first by the wheat growers of Alberta for the purpose of preventing soil drifting on fallowed fields during the late fall and winter months. The land is fallowed until the latter part of July and then seeded to cereal grain crops. Usually, considerable growth is made during the fall months and stockmen rent this high quality pasturage in order to put a better finish on livestock taken from their native pastures. Steers usually gain over two pounds a day and total gains of from 100 to 150 lb. or more are obtained. During recent years this practice has been a profitable one for the wheat growers and stockmen alike, and further development may be expected.

The production of seed of forage plants as a cash crop has reached considerable proportions, and revenue from this source makes a substantial contribution to the national income.

Throughout Canada there are millions of acres of actual or potential agricultural land that are marginal or submarginal for the production of cereal crops. While such conditions exist in all of the Provinces, the greatest areas are located in the drier portions of western Canada where owing to insufficient rainfall or roughness of topography, the native grass is the most profitable crop to produce.

In some cases these short-grass prairie lands were ploughed up in an attempt to grow cereal crops. In most cases the attempt failed, the lands were abandoned, and left to grow weeds. Some of these abandoned lands gradually reverted to the natural grasses, while during recent years others have been re-grassed artificially and converted into good pasturage. These grasslands are now producing great numbers of high-quality livestock.

Special Crops.—Many people think of Canadian crop production in terms of wheat, oats, and barley. There are, however, a number of crops which occupy smaller areas but contribute substantially to cash farm income in those areas in which they are grown. These include tobacco, sugar beets, hybrid corn, soybeans, sunflowers, rape seed, honey and maple products.

Tobacco is grown mainly in south-western Ontario. Actually there are several types and these are grown in districts where conditions are suitable for their production. In 1946 approximately 110,358 acres of tobacco were grown in Canada, of this 91,432 acres were flue-cured and a little more than 10,000 acres Burley tobacco.

The expansion in tobacco production in Canada has been in the flue-cured type. In 1927, for example, 8,000 acres of this type were grown. Over the period 1935-39 the average acreage was 50,7000.

Sugar beets are grown in fairly well defined areas in four provinces. However, favourable conditions for production of this crop exist in large sections of the country. High labour requirements and competition from intensive crops restrict the area of the sugar beets crop.

In Ontario beets are grown in Essex, Kent, Elgin, Middlesex, and Lambton Counties. The production from this area was at one time the sole Canadian supply of beet sugar. Factories are located at Chatham and Wallaceburg. In recent years, however, the largest area in beets has been grown on irrigated land in southern Alberta. Commencing in 1940, Manitoba farmers began producing this crop for processing in a new factory at Fort Garry. Later another new factory was built at St. Hilaire in Quebec and operation commenced in 1944.

Thinning and blocking machines have been developed. Harvesting and topping and leading machines have been introduced on many farms. The supply of these machines is still small and imperfections are still to be overcome but the back-breaking work in handling beets on the farm is on its way out. At the factory end, mechanical unloading and handling has been successfully applied.

Other wartime developments in beet production include the introduction of segmented and pelleted seeds. The segmentation process is designed to leave only one seed per segment. This practice has been largely adopted.

The pelleting process is a more recent development. It is designed to overcome the rough edges of the seed and to enable an even flow of seeds through the planter.

The total output of beet sugar in Canada in recent years has varied from 129·3 million pounds in 1943 to 215·9 million pounds in 1941. The value of the refined sugar output at the factory was about $6,000,000 in 1938, $11,600,000 in 1941 and $59,990,835 in 1945. Beet sugar has represented from 13·7 per cent of the total sugar refined in Canada in 1938 to 23·6 per cent in 1942. The average for the seven year period 1938-44 was 17·0 per cent.

One of the most significant developments in recent years has been hybrid corn. The development of hybrid strains has resulted in a more dense root system capable of providing greater food supply and holding the plant in position more securely. It resulted in stouter stalks and thus lodging is less frequent. This in turn makes harvesting much easier. The crop matures more uniformly. The sturdy stalks make hybrids less subject to serious breakdown in corn borer infested areas. In addition to this yields from hybrid strains are considerably higher than those of standard varieties. In Ontario some hybrids have out-yielded standard varieties by as much as 30 per cent and other by 15 to 25 per cent. The influence of hybrid corn may be emphasised by the re-expansion in production of corn in Ontario. In 1938 there were no hybrid strains planted in Ontario but by 1941 from 50 to 60 per cent of the acreage was hybrid corn and by 1944 it was 95 per cent.

Sunflowers gained new importance during the war when they were grown and processed to provide edible oil. Prior to 1940, not a sunflower was grown for the edible vegetable oil it could supply. In 1946 an area of 24,000 acres was planted. The yield was slightly more than 550 pounds per acre.

In the last ten years soybean acreage has more than quadrupled. In fact in 1946 it was about five and a half times larger than in 1936. This was the high point in production when 1,072,000 bushels were grown on 59,000 acres. In addition to the crop grown for processing and for stock feed, between 7,000 and 9,000 acres were grown for forage. Over the period 1936 to 1947 the yield per acre varied from 16·0 to 22·7 bushels.

The crop is grown in every province but the entire commercial acreage is in Ontario. Soybeans are used commercially to obtain oil. The residue is a high grade stock food or may be used as flour. Most of this product is marketed in eastern Canada. The oil is used as a vegetable shortening, as a salad oil, and in foods. Soybean oil is also used in the paint industry in light coloured lacquers and coatings of buildings and railway equipment.

Rape seed oil is another wartime product so far as Canada is concerned. This crop may be grown in many places in this country. However, production is largely confined to Saskatchewan and Manitoba. Rape seed oil was not produced in Canada prior to 1943. But in 1944, 2·2 million pounds of oil were used in this country. This oil is used as a marine engine lubricant but its popularity as an edible oil has grown rapidly. Thus of the 2·2 million pounds used in 1944, 1·3 million were used for marine oil lubrication and 900,000 were used in food stuffs.

Honey is produced in every province. Over the period 1940-46, Canadian production average 33,044,000 pounds. Over 95 per cent of this amount came from Ontario and Quebec. In spite of this, it should be noted that production has been rising more or less steadily in the Prairie Provinces. The biggest crop yet produced was harvested in 1938 when 45·7 million pounds were produced. In earlier days, fruit growing and bee-keeping were complementary enterprises but the increased use of poison sprays have made bee-keeping unprofitable in orchard areas.

As early as 1861, it was reported that 16 million pounds of maple sugar or its equivalent in syrup were produced in Canada. Census records reveal a continual rise until 1890 when the output was placed at 25 million pounds.

In 1945 maple products were placed under the Maple Products Industry Act. Enforcement of this legislation has resulted in a generally improved quality of these products. In the period 1940-44 production averaged 27 million pounds. One estimate made places potential production at 80 million pounds.

Methods of harvesting the maple crop have undergone great changes. In earlier days, the wooden spile and wooden bucket were used to secure the sap. These have given way to metal spiles and metal sap pails with covers to keep out rain and snow. The old iron kettle has been replaced by an " evaporator " which is set up in a " sugar camp."

The syrup is now tested by specific gravity instead of the " drop " from a stick or dipper, or by tasting. No longer does the farmer carry the sap to the camp. It is collected in covered tanks drawn by horses. All of these changes have tended to improve the quality of Canadian maple syrup.

Farm Livestock

Canada is well suited to the raising of all kinds of farm livestock. Canadian farm animals are remarkably free from disease, and the more virulent contagious maladies are entirely absent.

Fine horses, both light and heavy, are bred in all provinces. The use of power equipment on farms and for commercial projects has caused a decline in the number of horses. In 1921 there were 3·5 million horses on farms, whereas in 1941 the figure was 2·9 million, and in 1947, 2·0 million.

Cattle, principally of British origin, are bred in all provinces, and, as in the case of horses, there are large ranches in Saskatchewan and Alberta. The beef breeds include Shorthorns, Herefords, Aberdeen Angus and Galloways. The Prairie Provinces and Ontario are surplus areas in the production of cattle. In Ontario cattle raising is an important industry, the animals being fattened on grass lands during summer and in fall within inclosures or stall fed during winter. Each year a considerable number of feeder cattle from western Canada is fattened for the market in western Ontario.

Ontario was the leading province in hog raising, but in recent years a rapid development in production has taken place in Saskatchewan and Alberta resulting in the latter now ranking first in hog production. The park belt area of the Prairie Provinces is particularly suited for hog production in that grain supples are generally available in ample quantities for feeding purposes. Canadian farmers specialise in the production of bacon type hogs of the Yorkshire breed and in late years have been the second largest suppliers of bacon to the British market.

Sheep numbers have remained fairly constant for the past few years. About 45 per cent of the sheep are raised in western Canada, principally in the ranching areas of Saskatchewan and Alberta. Of the remainder, 45 per cent are raised in Ontario and Quebec and 10 per cent in the Maritimes. Canada exports very few sheep and little mutton or lamb, and frequently lamb is imported to fill domestic needs. Poultry raising is general throughout Canada. After the outbreak of the Second World War the poultry industry expanded in all provinces. The United Kingdom is normally the main export market for eggs and dressed poultry.

Farmers received 507 million dollars from the sale of meat, animals and wool in 1946. This represents 29 per cent of the total cash income received from the sale of farm products. Meat and wool animals are raised in every region of Canada and on nearly every farm. These two facts emphasise the importance of livestock to agriculture.

By 1945 cattle numbers had reached an all-time peak. The number of sheep and lambs in 1945 had been surpassed only in 1944 and 1931 when the population was 3,725,500 head and 3,627,100 head respectively. In 1945 the hog population was 6,025,600 and had been greater in only the three previous years when the number of hogs on farms was over the 7 million mark.

The long-time trend of the livestock population is one of progressive increase. From 1920 to 1947 the cattle population increased 19 per cent and the hog population 74 per cent. However, the sheep population decreased 15 per cent and the number of horses 40 per cent. This last mentioned class of livestock is used as an instrument of production in Canada rather than for meat production. Because of this factor as well as its declining importance in Canadian agriculture, horses will not be considered further.

In general, since 1920, the livestock population has increased little or has decreased in the five eastern Provinces but has shown large increases in the four western provinces. This change in distribution of livestock population may be attributed, to a large extent, to the development and expansion of agriculture in western Canada. Cattle numbers increased 30 per cent in Alberta, 83 per cent in British Columbia, and 25 per cent in Manitoba, with Saskatchewan ranging between these extremes of increase.

In the Maritime Provinces there were 24 per cent fewer cattle on farms in 1947 than in 1920. In Ontario there was an increase of only 9 per cent and in Quebec an increase of 23 per cent. The number of sheep on farms declined in each of the five eastern Provinces while increases of at least 58 per cent occurred in each province of western Canada. Hog numbers increased in each province from 1920 to 1947. The amount of this increase ranged from 12 per cent in Nova Scotia to 54 per cent in Quebec for eastern Canada and from 73 per cent in British Columbia to 253 per cent in Alberta for western Canada.

Increases in meat production accompanied this increase in the livestock population. In the period 1920-24 the average annual production of pork, beef, veal, mutton and lamb was 1,132 million pounds. During the five war years 1940-45 production rose to 2,162 million pounds.

Pork production showed the greatest increase and was up 142 per cent. Beef production increased 50 per cent. These two classes of meat represent 92 per cent of the total meat production during the war years. In 1920 the production of wool was 14·9 million pounds. By 1946 wool production rose to 19·0 million pounds or an increase of 27·5 per cent.

The equipment and facilities for marketing and processing meat—beef, veal, pork, mutton and lamb, offals and canned meat—includes railway stock cars, motor trucks, public stockyards, slaughter houses, meat packing plants, refrigerator cars and cold storage warehouses. In 1946 the total production of meat in Canada was about 2·2 billion pounds. Of this great quantity, about 36 per cent of the pork, 13 per cent of the beef and 16 per cent of the mutton and lamb were exported.

There are 11 public stockyards in Canada, the operation of which comes under the Livestock and Livestock Products Act. This Dominion government act provides for the standardisation of trading practices and service charges, and for grading under central authority. Livestock selling agencies are required to organise as a livestock exchange.

In 1946 about 64 per cent of the cattle, 55 per cent of the calves, 43 per cent of the sheep and lambs and 14 per cent of the hogs marketed commercially passed through stockyards. The percentage of Canadian livestock passing through stockyards has declined in recent years because of the increased shipment by producers direct to meat packing plants.

Meat packing plants take a much larger proportion of the livestock markets for slaughter in Canada than do other buyers. In 1945 there were 152 packing plants in Canada. In one-third of these plants Dominion Government inspectors were located. These are called inspected plants and it is only from inspected plants that meat can be sold in the export market. By-products of packing plants include hides, wool, hair, lard, tallow, glands, inedible tankage, organic fertilisers, such as bone meal, etc. Fresh, cured and canned meat is shipped from meat packing plants to retailers in all parts of Canada to be sold to Canadian consumers and these products are also exported in large quantities. The United Kingdom is the principal market and a small quantity goes into the United States. In order to even out the seasonal variations in livestock markets, meat products are placed in cold storage for varying periods.

In the year 1871 there were one and one-quarter million milk cows in Canada and by 1910 the number had more than doubled. By 1946 the total number of milk cows in Canada reached 3,711,400.

Canada's pure-bred dairy cattle industry is growing rapidly. The annual registrations in 1910 totalled approximately 8 thousand head including all breeds and in 1943, the record year to date, there were registered over 86 thousand head.

Ontario and Quebec are the largest milk producing provinces in Canada. In 1946 cash income from dairy production was $198 million in these two provinces compared with $285·6 million for the whole Dominion. About 71 per cent of the creameries, 93 per cent of the cheese factories and 83 per cent of the concentrated milk plants are located in Ontario and Quebec. These provinces lead the others in the production of liquid milk, butter, cheese, and concentrated milk products. Over 94 per cent of the cheese production is centered in Ontario and Quebec. Although Ontario and Quebec account for 56 per cent of the Dominion's butter production, the Prairie Provinces in recent years have been important producers of this product. This area has a surplus above local needs, which is shipped to other provinces and exported. Approximately 39 per cent of the creamery butter was produced in the Prairie Provinces in 1941, and 35 per cent in 1945.

To market 17½ billion pounds of milk, of this great volume about 47 per cent is utilised in butter production—40 per cent in commercial creameries and 7 per cent on farms—and about 11½ per cent is used for making cheese, there are in Canada 1,130 creameries, 927 cheese factories and 184 combined cheese and butter factories. About 23 per cent of the total milk production is sold in liquid form, about 10 per cent is consumed as liquid milk on farms, 3½ per cent is made into condensed and evaporated milk in concentrated milk plants, 1½ per cent goes into ice cream and 4½ per cent is fed to livestock. The growth of urban centres in Canada has been responsible for the growth of the dairy industry in Canada and the diversion of milk from cheese factories to the liquid milk and butter trade.

In 1946 about 72 per cent of the total cheese production was exported. There were also exports of several million pounds of butter, condensed and powdered milk.

There has been a remarkable increase in the size of the egg and poultry industry during the twenty year period, 1926-46. The estimated poultry meat production for 1946 was 306 million pounds as compared with 98 million pounds in 1926. Egg production in the same period rose from 262 million dozen to 347 million dozen. At the same time, the industry has advanced rapidly from a technological viewpoint. More and more chicks are coming out of commercial hatcheries. Commercial poultry feed is being used on an expanded scale. Brooders are being sold in greater numbers.

Eggs and poultry represent an estimated 5 per cent of the gross value of Canada's agricultural production. Poultry keeping is Canada's most widespread livestock enterprise. It is typically a mixed-farming enterprise, with thousands of relatively small flocks and comparatively few farms on which it provides the major source of income.

Spring is the natural laying season for all poultry in the northern hemisphere. Likewise, with respect to export eggs, Canada's main outlets are located in northern hemisphere. With receipts running three times heavier in the spring peak than during the autumn period of low production, we have practically no surplus eggs beyond domestic needs from July until late December—the period when the importing countries are short as well.

In 1946 the production of eggs in Canada was about 347 million dozen. Of this vast quantity about 61 million dozen were exported, mostly to the United Kingdom, either in fresh or dried forms. Of the total production of 306 million pounds of poultry meat in 1946 about 2 million pounds were exported, mainly to the United States.

The fact that Canada had a completely established system of egg grading and egg marketing is one reason why Canada was able to make such a remarkable contribution in the way of eggs to Great Britain during the war and since.

Under Dominion regulations, supported by Provincial legislation to cover the fields of purely Provincial jurisdiction, it is required that all eggs bought and sold in Canada must be dealt in on a basis of grade. All grading is according to the Canadian Standard Egg Grades and is done only in Registered Egg Grading Stations, with the single exception that a producer may grade his own eggs for sale. It is the function of the staff of the Poultry Products Inspection Service to check and supervise grading stations, including graded returns to producers, to check the grading of eggs as sold in wholesale and retail channels and to inspect and issue grade certificates for eggs moving in carlots between provinces or to export markets.

The major part of the egg production is assembled at countrypoints, chiefly at local egg grading stations or, in more remote areas, at local stores and thence to grading stations. There are now 1,600 registered egg grading stations, some of these stations are co-operative, some privately owned and some controlled by large produce farms. They have been established in practically all heavy producing territories. At these local stations the eggs are graded and packed, and shipped to terminal markets where they go into wholesale or retail distribution or are assembled into carlots for interprovincial or export movement.

Egg inspections in 1946 amounted to 2,817,955 cases. The greater part of these inspections were on eggs for export to Great Britain. With the surpluses that have been developing in most provinces the tendency has been for more provinces to become self-supporting with the result that there are fewer inspections for inter-provincial trade and more for export.

During the war years egg drying became an important food processing industry. In 1946 there were nine drying plants located across Canada.

Part of the Canadian poultry crop is marketed by producers alive and part dressed. Broilers and light chicken in the spring and summer, and fowl in the summer and early fall are mostly marketed alive. Some of these birds go to killing plants where they may be fed for a brief period before killing. Others go into the Jewish live poultry trade in the larger centres. Both eastern and western Canada are well equipped with plants with proper facilities for feeding, killing and pre-cooling poultry.

A significant development in connection with market poultry has been the expansion and the improvement in poultry killing, cooling and freezing facilities permitting more efficient and year round marketing. New plants have been built and old plants made over the majority of the plants, excepting the smaller ones, equipped with modern and efficient processing equipment and built to meet the standard blueprints of the Dominion Department of Agriculture. The number of plants and the daily killing capacity in the Dominion have been stepped up from comparatively low figures to 223 plants with total killing capacity of approximately 9,485,404 birds per month.

Under the existing Dominion-Provincial legislation, it is possible to introduce retail sale of poultry by grade progressively from area to area, rather than passing whole provinces or the Dominion as a whole at one time. Sale of poultry by grade at retail is now required in the following cities in Canada—Winnipeg, Toronto, Ottawa, Montreal, Quebec, Charlottetown and Summerside, and is being extended in accordance with public demand. Grade standards for canned poultry became effective in May 1943.

Fruit and Vegetables

The fruit and vegetable industry of Canada has expanded in the last twenty years at a rapid rate and covers a wide range of crops. In fruits, Canada produces, in commercial quantities, apples, apricots, pears, peaches, plums, cherries, grapes, strawberries, raspberries, blackberries, currants, gooseberries, cranberries, loganberries and, recently, blueberries. In vegetables, a full line of crops is grown under various conditions in practically every province in the Dominion. Data available from the Dominion Bureau of Statistics indicate that for the year 1946, the value of all fruits and vegetables was in the neighbourhood of $97,808,000.

Until the last twenty-five years, the apple industry of Canada was largely centred in Ontario and Nova Scotia, with the older provinces of New Brunswick and Quebec occupying a very small place in production figures. Today British Columbia outstrips all other provinces on actual production, with Nova Scotia occupying second place,

LIVESTOCK ON FARMS IN CANADA, AS AT JUNE 1, BY CLASSES, 1939-1947

Year	*Horses*	*Milk Cows*	*Other Cattle*	*All Cattle*	*Sheep and Lambs*	*Hogs*	*Hens and Chickens*
1939	2,760,600	3,681,000	4,693,500	8,374,500	2,911,400	4,363,800	56,805,000
1940	2,780,000	3,649,900	4,730,100	8,380,000	2,886,600	6,001,700	58,712,000
1941	2,788,800	3,623,900	4,893,400	8,517,300	2,840,100	6,081,400	58,994,000
1942	2,816,100	3,680,500	5,264,200	8,944,700	3,196,900	7,125,200	68,106,000
1943	2,775,200	3,794,700	5,870,500	9,665,200	3,458,600	8,148,500	74,960,000
1944	2,735,000	3,929,600	6,416,200	10,345,800	3,725,500	7,737,700	86,792,000
1945	2,584,800	3,998,200	6,760,400	10,758,600	3,621,800	6,026,000	84,725,000
1946	2,200,000	3,711,400	5,953,600	9,665,000	2,942,000	4,910,000	76,912,900
1947	2,023,000	3,697,400	6,020,700	9,718,100	2,707,000	5,473,000	83,914,100

SOURCE: Poultry Survey, June 1, and Livestock Survey, June 1. Dominion Bureau of Statistics, Live Stock and Animal Products Branch, Ottawa, Annually.

Ontario third, Quebec fourth and New Brunswick a poor fifth.

In potential production for the next ten years, based on planted acreage, Nova Scotia and British Columbia are about equal, while Ontario with heavy new plantings, is in the lead, having double the British Columbia acreage. Quebec alone has acreage planting almost equal to British Columbia. Thus the stage is set for a tremendous increase in apple production in Canada in the next ten to fifteen years. The average production at present is around 14·5 million bushels per year, and, barring unforeseen disasters, it might be conservatively estimated that this figure will be increased to 20 million bushels in the not far distant future. Either Canada will have to eat more fruit per capita, export more, or increase in population to take care of this potential production. The major part of the Canadian production of peaches, pears, cherries, and grapes is produced in southern Ontario. Considerable quantities are also grown in British Columbia.

In the tree fruits the peach crop comes next to apples in importance with a total acreage of over 20,400 of which 17,735 is located in Ontario and the balance in British Columbia. British Columbia is a newcomer in this industry, where the production is located in the southern half of the Okanogan Valley.

In looking to the future of the Canadian fruit industry, one is struck by the trend towards a shift in apple production to the more severe parts of Ontario and Quebec, which, due to the advent of the McIntosh variety and, later, to the more adaptable varieties of the plant breeding institutions, are more than competing for their share of the markets. Added to this is the recent adoption of hardier root-stocks and better tree building technique, all of which assures for these regions a permanent and expanding production.

Another fruit recently introduced to cultivation is the blueberry and an infant but flourishing industry is being established in the peat lands of Lulu Island in British Columbia.

Whilst every province in Canada produces vegetables in appreciable quantities the largest acreage is concentrated in Ontario and Quebec.

To the provinces of New Brunswick and Prince Edward Island the potato crop is of greater importance than to any other province in Canada.

The bulk of tomato production is in Ontario with an appreciable acreage in Quebec and British Columbia. These three provinces will always produce the most of this crop owing to climatic conditions, but British Columbia could very easily increase its acreage if the demands require it. For many years the pea canning industry was concentrated in Ontario, then, it spread to southern Quebec and still more recently to British Columbia and the irrigated sections of southern Alberta. One might expect a marked increase in the Alberta acreage as their soil and climate is particularly adapted to this crop, where it encounters less difficulty from climatic vagaries and certain diseases and insect pests.

Of the four canning crops, viz., bean, corn, pea and tomato, we find a total acreage of 138,940, of which 137,390 acres were for canning purposes in 1946.

In 1945 there were in Canada 470 fruit and vegetable processing plants; of these 191 were in Ontario, 156 in Quebec and 62 in British Columbia.

Prior to World War II Canada's vegetable seed industry was a struggling infant. There was a well established pea seed production industry in Alberta and a well organised but small effort toward general vegetable seed production in British Columbia with a few interested individuals here and there in eastern Canada.

With the advent of war and the cut-off of imports Canada's vegetables seed production was stepped up tremendously to take care of home and export requirements. While no statistics are available it is doubtful if the value of the vegetable seed crop in 1939 exceeded three to four hundred thousand dollars. By 1944 this had increased to 2·4 million which represents a total production of 18,607,035 pounds of seed.

Governmental Activities related to Agriculture

Associated effort for the improvement of agriculture in Canada is largely directed and controlled by the State. The general organisation of services affecting agriculture is centred largely in the Dominion Department of Agriculture, in co-operation with the nine provincial Departments of Agriculture.

On the Federal basis, the Dominion Department of Agriculture has the closest association with the agricultural industry in Canada. Other Departments, such as Trade and Commerce, Finance, and Mines and Resources, come in contact with farmers as a result of their administration of the Canada Grain Act, the Canadian Wheat Board, the Canadian Farm Loan Board, and the Veterans' Land Act. The Department of Agriculture was organised in 1868, its functions at that time including immigration, statistics, public health, patents, copyrights, arts and manufactures. Today these many services have been transferred to other departments, while the Department of Agriculture concerns itself with matters more directly associated with Agriculture.

At present the Dominion Department is divided, for purposes of administration, into five services: administration, production, experimental farms, marketing and science. The provinces have their own organisational set-up. A functional division, to some extent, cuts across the administrative set-up.

There has been little or no break in the continuity of measures of general aid to agriculture. But the types have changed radically as policy has had to evolve from straightforward encouragement of production and better production practices to the complications of economic control.

Development assistance.—Includes grants to cold storages, warehousing and processing plants, agricultural fairs and exhibitions; and financial support of organised activities that have to do with improving the quality of livestock and crops.

The programme is usually backed up by grants in kind or in cash. The major purpose is to encourage farmers to follow a proper and intelligent system of breeding. It involved more than the production of a good animal—it was designed to build up consistent domestic and export demand for a uniform product, and to cut down costs of production. The following is a list of some of the Dominion and Provincial promotional programmes: The Record of Performance (R.O.P); The Advanced Registry Service; Sire Loaning Policy (bulls, rams, boars, stallions); Purebred Livestock Registry Service; Brood Sow Policy and The Hatchery Approval Policy. Other types of assistance include money grants to the Canadian Seed Growers Association, and Boys' and Girls' Clubs.

The promotional services.—Are mainly educational. Most provinces employ district agricultural representatives, who carry on educational work among the farmers. This is one means of acquainting farmers with the best methods of farming. Other media, such as pamphlets, newspaper articles, lectures and radio addresses are also used by both Provincial and Dominion Governments.

Regulatory and protective service.—Falls largely within the administration of the various acts, orders and regulations passed by the several governments. For instance, the Dominion Government and provincial departments of Agriculture administer legislation for the control of disease and pests, as well as that pertaining to the grading and marketing of farm products.

The provincial departments of agriculture are all concerned with marketing and provide assistance in various forms. Nova Scotia, Quebec, Ontario, Saskatchewan and British Columbia have separately organised marketing divisions or branches. Other departments provide service in one way or another, frequently through divisions and officers who combine a variety of functions.

All departments are concerned with grading and inspection and all have enacted pertinent legislation. In some provinces a general act covers all products; in other special acts have been provided. The maintenance of a provincial staff of graders is not common, but at least one province does provide such a service. Dominion standards apply to inter-provincial and export trade, and in most provinces to products sold in intra-provincial trade. In certain provinces, however, special grades have been established for products sold within their individual boundaries.

Grading and inspection is for the most part done by Dominion staff. The authority for this is provided in provincial statutes in most instances, though not all. In the main it can be said that the provinces have shaped their programmes and tried in various ways to co-ordinate their activities with those of the Dominion. While the provinces are concerned with certain aspects of local marketing in their own exclusive right, the fact that most products enter interprovincial or export trade in some volume and thus come under Dominion jurisdiction as regards grading and inspection, causes the provinces to rely on the Dominion for the major effort in this field.

Varieties have been standardised by eliminating undesirable types. Demonstrations have been given on preparation of products for market. In some instances, products have been assembled, graded, packed and marketed by departments of agriculture in order to develop an industry. As an inducement to produce and market better quality products, provinces have resorted to the policy of paying premiums for quality products.

Investigation and research—In problems of Canadian agriculture involve local matters as well as matters common to all provinces, and are centred in certain branches of the Dominion Government, Colleges, Universities and Research Institutions. The great bulk of the work undertaken by the Dominion Departments arises out of services performed, the need for information on which to base policy, emergency conditions in agriculture and market demands. The experimental farms which are situated at strategic points across Canada carry on experimental work in crops, fertilisers and animal husbandry.

Ontario, Quebec and the four western Provinces each support a college of agriculture. In Saskatchewan, Alberta and British Columbia the agricultural college is an integral part of the provincial university. In Quebec, Macdonald College is a faculty of McGill University. In Manitoba and Ontario the colleges originally were separate institutions but now the Manitoba Agricultural College is a faculty of the University of Manitoba, and the Ontario Agricultural College is closely affiliated with the University of Toronto. An agricultural college at Truro, Nova Scotia, serves the three Maritime Provinces of Nova Scotia, New Brunswick and Prince Edward Island.

By far the largest organisation in Canada which conducts investigations in agricultural science and practice is the Dominion Experimental Farm Service. This is one of the four main departments of Agricultural Services of the Dominion Department of Agriculture.

At present, the total number of Dominion Experimental Farms and Stations, is twenty-eight. There is one or more of these farms in every province of Canada, each strategically placed to serve a particular area. The farms vary greatly in size and in the variety of their " projects," the latter depending on the farming problems peculiar to the area in which they operate. The work is organised under several Divisions with head offices at the Central Farm in Ottawa. Projects are drawn up, usually in consultation with the Superintendent of the Branch Farm involved, and become effective on authorisation of the Director. Some indication of the extent of this work is that 1,500 of these projects were in operation in one year. A single project may represent the full-time work of a large group of specialists, or be the part-time responsibility of only one individual.

The Dominion Experimental Farms operate 10 Sub-stations, 162 Illustration Stations and 49 District Experimental Sub-stations. The ten Sub-stations extend the investigations of certain of the Farms to areas not adequately served by the Farms themselves, while the Illustration Stations and District Experimental Sub-stations are devoted chiefly to work in the nature of trials and demonstrations relating to farm practices.

" Science Service " of the Dominion Department of Agriculture also conducts agricultural research in 45 Laboratories located throughout the Dominion. The head office and five of the laboratories are in Ottawa, two or more laboratories in each of the provinces. Most of them are located at Dominion Experimental Farms and Stations. Six are at Agricultural Colleges.

Scientists in these Laboratories devote their attention to a wide variety of problems. In most of them the work is specialised; 23 in entomology, 12 in plant pathology, and the remainder in other lines.

Important researches are also undertaken by the Agricultural Economics Division of " Marketing Service." This Division works with other divisions of the Department of Agriculture and with other departments of government in conduct of its investigations. Its activities range from surveys of ranching conditions in western Canada, conducted in co-operation with the Experimental Farms Service, to studies of food consumption levels and nutritional standards, carried on in co-operation with the Department of National Health and Welfare. A large part of the research undertaken has been conducted with the assistance of provincial departments and Colleges. The Division maintains an office and staff at the Universities of Manitoba, Saskatchewan, Alberta and British Columbia, where an extended programme of research is under way.

Reference should be made to the " National Committees " of the Dominion Department of Agriculture, many of which are concerned with research projects and with co-ordinating the work of committee members who, because of their interests or specialised training, may be invited to participate. The Committees are organised mainly to facilitate co-operation between the Dominion and the provinces whenever joint action is believed advisable.

Another Dominion Government institution which plays a very important role in agricultural research is the National Research Council. This phase of the Council's work is organised under the Division of Applied Biology.

It is not possible to deal with all governmental activities in detail. A few of the more important activities are mentioned in the following paragraphs:—

The Grain Trade.—The first Act of the Dominion Government with respect to the grain trade was the General Inspection Act of 1874. This Act was amended in subsequent years and re-enacted in 1904. In order to protect the interests of both buyer and seller and establish the grade of each lot of grain in an impartial manner, the task of inspecting and assigning grades has been performed since 1912 by the Dominion Government through the Board of Grain Commissioners (Department of Trade and Commerce). The Canada Grain Act of 1912, besides creating the Board for the general supervision of the handling of grain, established a statutory set of grades which have been amended from time to time. The Act provided for official supervision of the handling, storing, transportation, inspection, and sale of grain by the Board of Grain Commissioners to which reference has already been made. This Act has been amended frequently and re-enacted in 1925 and in 1930.

From 1919 to 1921 the Dominion Government controlled the marketing of grain under the Canadian Wheat Board Act of 1919. In 1935 the Canadian Wheat Board Act was passed which assigned to the newly-created Board the handling of the accumulated wheat surplus, and set up machinery whereby the Board offered fixed prices for wheat, and during the war years for oats, barley, flaxseed, rapeseed and sunflower seed.

Land Settlement—Federal.—From the time of Confederation until March, 1892, all matters directly relating to immigration and settlement were under the jurisdiction of the Department of Agriculture. Between March, 1892, and October, 1917, these matters were administered by a separate branch of the Department of Interior. In 1917 an autonomous Department of Immigration and Colonisation was established, this Department continuing until December 1, 1936, when it was reconstituted as the Immigration Branch of the Department of Mines and Resources.

Through the various administrative divisions mentioned above, the Dominion Government has co-operated with Colonisation Departments of the Canadian Pacific and Canadian National Railways in the settlement of immigrants and resident Canadians in general.

The Federal Soldier Settlement Board was primarily concerned with the re-establishment and establishment on the land of veterans of the Great War. The statutory authority for the creation of the Board—" The Soldier Settlement Act "—was passed by the Dominion Parliament in 1917. The Board actually came into being on January 30, 1918. In 1942 the administration of the Veterans' Land Act was assigned to the Soldier Settlement Board. This Board was reorganised as the Veterans' Land Administration.

The Veterans' Land Act of 1942 is one of the rehabilitation measures designed to give financial assistance to experienced men interested in full-time farming, or small holding settlement coupled with other employment. The provisions of the Act apply in all provinces of Canada. The maximum assistance available for the purchase of land and buildings and other permanent improvements is $4,800, plus a maximum of $1,200 for farm equipment and livestock—a total of $6,000. The interest rate is 3·5 per cent. The down payment by the veteran is 10 per cent of the cost of land and permanent improvements only, and provided he complies with the terms of his settlement contract for a period of 10 years the Dominion of Canada absorbs approximately 24 per cent of the cost of the land and permanent improvements and makes a gift of the chattels to him.

Before a veteran may acquire a farm he must be experienced in farming or acquire additional farm experience and training. The Director, accordingly, may place veterans with selected farmers for practical instruction; supply instructors and inspectors to assist veterans with information and instructions on farming; and make arrangements with Dominion and provincial departments of Government, the extension departments of Canadian universities or recognised agricultural schools and colleges for the purpose of providing training and instruction.

It should be noted that each of the provinces has assisted settlers from time to time. The Dominion Government and various provinces assisted British settlers, and " relief " settlers during the nineteen thirties. However, at present the Dominion Government is the only active agency.

Land Use.—A factor leading to increased productivity results from soil and water conservation practices. The improved use of resources means more of the best farm land being used for crops and more of the less productive land for grass and trees. Drainage and irrigation have enabled, and will continue to enable, much land to be cultivated in those sections of Alberta and British Columbia where little rain falls, while irrigation has made possible the production of intensively cultivated fruit and vegetable crops. Fertile land in Ontario and Quebec, on which crops often had wet feet, has been drained. Dyke lands in the Maritimes and British Columbia have been reclaimed from the ocean and it is planned to reclaim even more. In every province evidence may be found of wind and water erosion and techniques have been developed to conserve land resources.

Crop failure has been a hazard to contend with on the prairies of western Canada. The drought that began in 1929 and continued for nine crop years in some localities, was perhaps the most severe experienced. During this period many millions of dollars were advanced by the Dominion and Provincial Governments to provide seed and feed, and to relieve distress. Out of this disaster was born a programme of rehabilitation and improved agriculture under the authority of the Prairie Farm Rehabilitation Act, 1935, and provincial assistance in various forms.

The Prairie Farm Rehabilitation Act (25-26 George V, c. 23) was passed by the Parliament of Canada in April 1935, " to provide for the rehabilitation of drought and soil-drifting areas in the provinces of Manitoba, Saskatchewan and Alberta." Emphasis was placed upon assistance to farmers in the development of water supply and improved farm practices. Under the terms of this Act the Minister of Agriculture was authorised to introduce throughout the affected area those " systems of farm practice, tree culture, and water supply that will afford greater economic security " to the agriculutural population. By an amendment to the Act in March 1937 (1 George VI, c.14) " land utilisation and land settlement " were included as additional objectives, while a later amendment in March 1939 (3 George VI, c.7), removed the original five-year limit to the life of the Act. In 1941 the Minister of Agriculture was authorised to purchase land.

In accordance with the terms and intentions of this Act there has been organised, throughout the drier regions of the Prairie Provinces, comprising over 400,000 square miles, located in south-western Manitoba, southern Saskatchewan and south-eastern Alberta, a rehabilitation programme which has as its main objective the adjustment of prairie agriculture to new conditions affecting western grain production since 1929. This rehabilitation programme covers three main phases of work: (1) Water Development; (2) Land Utilisation directed from the Prairie Farm Rehabilitation Office in Regina, Saskatchewan; and (3) Cultural, under the Dominion Experimental Farms Service.

The entire P.F.R.A. water development programme may eventually result in the irrigation of some 3,000,000 acres of land in western Canada.

While the main objective of the land use phase of P.F.R.A. work is to promote proper land use, the major emphasis so far has been on the permanent removal from crop production of submarginal lands through the establishment of Community Pastures. Since the inauguration of this work in 1937, a total of 76 pastures, ranging in area from 6,320 acres to 154,720 acres, and with an aggreagte acreage of 1,411,140 acres, have been established in Saskatchewan and Alberta. These pastures, under Dominion control, are operated for the benefit of neighbouring farmers. The capital cost of fencing, water development and grass improvement is borne by the Dominion. Control of the land is secured by the Province, and transferred under agreement to the Dominion. Grazing fees for the various classes of live stock are set at levels to cover current expenses such as pasture manager's salaries, maintenance of fences and so forth. Cattle and horses are the main classes of live stock carried with sheep on a few pastures. An important feature of Community Pasture work is the provision by the P.F.R.A. administration of pure bred breeding stock for cattle on pastures. At the beginning of the 1946 season 335 bulls were maintained for this service, and provision has been made for necessary increases in this stock.

Farm Credit.—In 1929 the Federal Government, through the Canadian Farm Loan Board, commenced to make long-term loans in six provinces, three of which, Nova Scotia, British Columbia and Manitoba, ceased to make loans under their own schemes. In 1935, after the Canadian Farm Loan Act has been amended, the Provinces of Saskatchewan, Ontario, and Prince Edward Island came under the provisions of the Act. The Canadian Farm Loan Board then operated in all nine provinces and was the sole government agency to make long-term loans to Canadian farmers.

The Canadian Farm Loan Board at present carries on loaning operations throughout Canada and for this purpose has established a Branch Organsiation and Branch Office in each province.

The Federal Government entered the field of farm credit after years of constant demand and appeal. Under the original organisation of the Canadian Farm Loan Board both the Dominion and Provincial Governments as well as the borrowers subscribed for a small portion of the capital stock in the Board, and the Board appointed Provincial Boards through which it was to function locally. However, in 1935 the Dominion Government became the sole shareholder and the dual control element was removed by the substitution of a chief executive officer, appointed by the Board with the approval of the Governor in Council, in each province in place of the Provincial Board. The original Act required the passing of enabling provincial legislation before lending could be commenced but in 1935 the necessity of such enabling legislation was done away with.

In the Province of Quebec prior to 1929 there was no Government agency for providing agricultural long-term credit. The Canadian Farm Loan Board established a branch office in Quebec in 1929 and in 1931 the Quebec legislature enacted legislation empowering the Provincial Government to contribute part of the interest payable by the Quebec borrowers up to 1½ per cent, thus reducing the rate of interest payable by Canadian Farm Loan Board borrowers from the rate of 6½ per cent current at that time in the province to 5 per cent. In 1935, when the rate of interest on all Canadian Farm Loan Board Mortgages had been reduced to 5 per cent (in 1945 the rate was reduced to 4½ per cent), the Quebec legislature by further enactment empowered the Provincial Government to contribute up to 2 per cent of the interest payable by Quebec borrowers, thus reducing the interest payable by such borrowers to 3 per cent.

In addition to the credit supplied by the Canadian Farm Loan Board, the Province of Quebec established its own farm credit scheme in the fall of 1936 by the creation of the Quebec Farm Credit Bureau which commenced operations in March, 1937, in order to facilitate refinancing indebtedness and to meet the demand for long-term loans on easier terms of repayment and on a higher ratio in relation to farm values than that available from the Canadian Farm Loan Board.

To provide intermediate term credit, the Dominion Parliament amended the Bank Act (August 9, 1944), and passed a " companion " Act, the Farm Improvement Loans Act, 1944 (August 9). By amendment of the Bank Act, the chartered banks are authorised to make loans to farmers for the purchase of farm machinery and livestock, the installation of agricultural equipment or a farm electric system, the erection of fencing or works for drainage, the construction, repair, alteration or extension of any building or structure on a farm, and any work for the improvement or development of a farm designated in regulations. Security may be taken on agricultural implements, equipment and farm electric systems. Under the terms of the Farm Improvements Loans Act, the government guarantees the chartered banks against loss up to 10 per cent of the amount loaned by it under this Act. As a whole, the guarantee applies to an aggregate total of $250,000,000 for banks provided the loans comply with certain regulations: (1) they must be made within a period of three years from the commencement of the Act (this is being amended to cover another three years); (2) the maximum loan is $3,000; (3) the rate of interest must not exceed 5 per cent; (4) the term is not to exceed 10 years. On loans in excess of $2,000, and repayable in more than five years, the bank may take a mortgage on the farm property as security.

Farm Housing.—There are four Federal statutes in effect at the present time through which the Dominion Government assists farmers to construct new houses or improve their existing homes.

The Canadian Farm Loan Act.—Under the Provisions of this Act, farmers may borrow money from the Dominion Government on first and second mortgages for a variety of financing requirements. One of these is for the purpose of improving an existing farm house, or to construct a new one. The rate of interest is 4½ per cent per annum on first mortgages and 5 per cent on second mortgages, with loans being made up to 50 per cent of the assessment of farm values, or a maximum of $5,000. The period of repayment is up to twenty-five years.

Farm Improvement Loans Act, 1944.—The purpose of this Act is to make it easier and provide more favourable terms for farmers to obtain short and intermediate term loans from the chartered banks. The loans are for effecting farm improvements. The improvements specified include construction, repair and remodelling of houses, and the repair and purchase of modern equipment for farm homes. Loans up to $3,000 at 5 per cent per annum are provided and the Dominion Government is authorised to guarantee up to 10 per cent of the amount loaned of losses which may be sustained by an individual chartered bank. Period of repayment may be up to ten years.

Veterans' Land Act.—Under this Act, the Director of the Veterans' Land Act is empowered to assist veterans to obtain land and buildings. A considerable portion of the maximum grant of $6,000 may be used under special conditions to build or improve farm lands.

National Housing Act.—The name of the Dominion Housing Act which was enacted in 1935 was changed in 1938 to The National Housing Act. This Act is the principal Federal Government statute designed to meet the housing problem and to promote the construction of housing throughout the country, both for home owners and for rental. The Central Mortgage and Housing Corporation was created by special Act of Parliament during the 1946 Session. The function of the Corporation was to be the operating agency of the Federal Government in the housing field, and one of its main tasks was the administration of The National Housing Act. Assistance for the construction of houses on farms is provided under Part III of The National Housing Act. This included provisions to encourage private lending institutions to make long-term mortgage loans to farmers for the construction of houses. It also contains provisions to encourage manufacturers of component parts of farmhouses, such as plumbing and heating equipment, to design improved and more economical types of equipment for farm houses, and to manufacture such equipment in sufficient quantity so that costs may be reduced to farmers.

Experimental Farm Activities in Regard to Farm Housing and Farm Buildings.—For over thirty years, Experimental Farms of the Dominion Department of Agriculture have provided to farmers some aid in the preparation of plans for either new buildings or the remodelling of existing buildings on Canadian farms. The number of sets of plans sent out to farmers on request during 1946 was over 17,000. Over the last ten-year period, more than 33,000 sets of plans have been sent out. These have covered all types of farm buildings, including farm houses and farm cottages. Because of a shortage of both funds and staff, this service was not advertised extensively.

No charges are made for any of the plans produced in the Architect's office at the Central Experimental Farm, Ottawa, even when under exceptional circumstances, sets of plans are prepared for Agricultural Societies, such as fair ground buildings and the like.

The second form of organised activity within the limitations of the small architectural staff of the Dominion Experimental Farms is to study sketches of barns or other farm buildings, sent in by farmers, suggest alternative and make rough drawings of the alterations suggested or send a stock plan which is applicable.

Price Supports.—At the 1944 Session of the Parliament of Canada, legislation described as " An Act for the Support of the Prices of Agricultural products during the Transition from War to Peace " was passed. The Act provides for the creation of an Agricultural Prices Support Board and assigns to the Board the authority (a) " to prescribe from time to time, with the approval of the Governor in Council, prices at which the Board may purchase agricultural products in the market "; (b) " to purchase at such prices any agricultural product, if such product on inspection meets standards as to grade and quality prescribed by or under any Act of the Parliament of Canada . . . ."; (c) " to pay to the producers of an agricultural product directly or through such agent as the Board may determine the difference between a price prescribed by the Board with the approval of the Governor in Council for such product and the average price, as determined by the Board, at which such product is sold in the market during the specified period if such average price is below such prescribed price "; (d) " to sell or otherwise dispose of any agricultural product purchased by the Board."

Other powers granted to the Board include authority to enter into contracts, to appoint agents, commodity boards and advisory committees, and to act as the agent for the Canadian Government in connection with any contract between the Government of Canada and any other government or agency thereof; also to act as purchasing agent in respect of any agricultural product for any department of the Government of Canada.

In prescribing prices under paragraphs (a) and (c) above " the Board shall endeavour to ensure adequate and stable returns for agriculture by promoting orderly adjustment from war to peace conditions and shall endeavour to secure a fair relationship between the returns from agriculture and those from other occupations."

" Agricultural product " is defined as " any natural product of agriculture except wheat, designated by the Governor in Council, and include processed meat, dairy and poultry products if so designated." Wheat is excluded from this Act for the reason that it is already dealt with under other legislation.

Working capital of $200,000,000 is provided by the Act. Any profit on the operations of the Board is to be deposited to the credit of the Consolidated Revenue fund and any loss is to be recouped from moneys appropriated by Parliament.

Agricultural Exports

Canada is known as a " surplus " food producing area. She exported an estimated 44 per cent of her total agricultural production in 1943.

The percentage of farm production entering into the export trade in the period 1930 to 1943 is estimated to have ranged from 15 to 44 per cent.[1] These variations are, in part, due to the international trade restrictions in the thirties, and, in part, due to the fluctuation in total output. Canada's major food exports are wheat, meats (beef, pork, lamb and mutton), cheese, manufactured milk products, eggs, poultry meats, apples, maple sugar, honey and beans.

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[1] In order that all commodities could be totalled and treated together it was necessary to calculate the percentages on a value rather than on a volume basis. For each individual commodity the same unit value was used for calculating values of production, exports, imports, and domestic disappearance. The value at the farm was used in all cases. Whenever possible, changes in stocks of commodities were taken into account in the estimates of domestic disappearance. They were not, however, taken into account in the calculation of the relationship of exports and imports to production. These calculations were made by the Agricultural Branch, Dominion Bureau of Statistics.

Exports of Canadian produce of farm origin increased substantially during the period 1930 to 1945. The value of farm produce exported reached over one billion dollars in 1945—about three times the value of exports in 1930.

Agricultural products constitute a large proportion of Canada's exports. In 1930, almost 50 per cent of the total value of Canadian exports originated in farm products. By 1945, exports of Canadian produce of farm origin made up 34 per cent of the total exports. This was higher than the figure of 31 per cent in 1938. The relative decline was due to increased exports of non-farm goods. A more detailed breakdown indicates that 24·5 per cent of all exports were of field crop origin, and 9·4 per cent of livestock origin.

The United Kingdon and the United States are Canada's best customers for farm products. In 1945, the United Kingdom bought $448·7 million worth of agricultural produce and the United States $294·7 million. The United Kingdom purchases were divided almost equally between field crop produce and livestock products; the United States purchases were overwhelmingly field crop produce ($266 million). It should be noted, however, that purchases by the United Kingdom and the United States declined in 1946.

Canada, however, is a more important source of supply to the United Kingdom than to the United States.

Canadian food products, both in peace and in war, go to all parts of the globe. In 1929, Canadian farm products were imported by 65 countries; in 1939, by 92 countries. Even during 1944, with blockades, submarine menance, shipping shortage, and export controls, edible farm products reached 69 export markets.

For individual commodities the percentage of production exported varied considerably, both between products and between years. Consider the classic example of wheat. In the 1926-29 period, Canadians were able to ship out 70 per cent of this grain. During the war years, 1940-44, Canadians sent out 63 per cent of their wheat production. On the other hand, the bulk of oats and barley find their way to the world consumers' table through steak, bacon and lamb chops. Almost half of our apples are sent abroad. About a third of the hog products and a third of the beef cattle are available for foreign use.

Foods of farm origin are shipped out raw and processed. It is interesting to note that in 1945, raw agricultural materials exported were valued at 700 million dollars (total value of agricultural exports was 1,094 million dollars). Wheat is shipped abroad as grain, flour or biscuits. Livestock leaves Canada on the hoof, in cans, as fresh, chilled or frozen meat. During the war years, edible offal became a staple export. Horses are leaving the country as beasts of burden, and as canned meat. Apples leave Canada fresh, evaporated, as apple sauce, and as juice. The tomato is exported as a juice, a paste, a purée, a pulp, and a soup. Milk has gone abroad as cheese and as powder. The sap of the maple trees reaches the United States market as maple sugar. Canada also ships out seeds, livestock for breeding purposes, and grains for livestock feeds.

One of the most important developments during the war, as regards the export of farm products, was the setting up of definite contractual relations between Canada and the United Kingdom. These contracts or agreements were drawn up between the Governments of the United Kingdom and Canada to cover shipments of such agricultural products as cheese, evaporated milk, bacon, beef, mutton and lamb, and other meat products, eggs, vegetables, fruit products, seeds, and fibre flax. In these contracts, minimum or maximum amounts to be taken by the United Kingdom, the price to be paid, method of payment, the period of delivery, and the quality, were stated. In many cases, as the need arose or as shipping became available, the United Kingdom bought products not covered by agreement or contract. Prior to 1944, agreements for food shipments between Canada and the United Kingdom were for a one-year period. In 1944, agreements for bacon, cheese, eggs and beef covered a two-year period; evaporated milk, fruits and vegetables were on a one-year basis.

During 1944, the total supplies of hog products, beef and eggs sent over to the United Kingdom broke all previous records. Limited quantities of butter, chicken and turkey were shipped overseas.

Canada succeeded in meeting the majority of requests that Britain made for food products since the outbreak of war and in some cases shipped more than was contracted. Shipments of cheese, eggs, bacon, in some years exceeded totals set in the agreements.

Shipments of vegetable and forage crop seeds were made to Great Britain in fairly large quantities. Early in 1940, seedsmen in the United Kingdom commenced to make contracts with Canadian growers for the production of a number of kinds of vegetable seeds. The quantities contracted for were increased in 1941 and 1942, after which it was decided by the British Ministry of Agriculture that it was desirable to have private contracts discontinued. Commencing with the 1943 crop, the British Food Mission of the British Ministry of Agriculture placed contracts with the Special Products Board, which assumed the responsibility of contracting for the required production as well as the responsibility for the shipment of the seed.

As regards fibre flax, Canada had an open contract with Britain for the duration of the war and for one year after the war. Britain agreed to take a minimum of 50 per cent of Canada's total production of fibre flax, and the United States agreed to take the balance, less Canada's domestic requirements. Shipments of fibre flax to the United Kingdom rose from 13,110 hundredweight in 1939 to 78,577 hundredweight in 1943. The contract signed in 1942 expired in September 1946, and a new contract was negotiated for 1947.

The contractual arrangements are being continued in the post-war period for some livestock products and wheat. The most important agreement is the four-year wheat contract.

EXPORTS OF SPECIFIED AGRICULTURAL COMMODITIES FROM CANADA 1944-46, WITH FIVE-YEAR AVERAGES, 1935-39

Commodity	*Average* 1935-39	1944	1945	1946[3]
Wheat and wheat flour[1] .. '000 bu,	164,517[2]	342,945	340,105	176,900
Pork[4] .. .. .. „ cwt.	1,796	7,177	4,620	2,979
Beef[4] .. .. .. „ „	109	1,074	1,948	1,361
Butter .. .. .. „ „	66	47	56	45
Cheese .. .. .. „ „	797	1,314	1,354	1,065
Condensed milk .. .. „ „	23	179	187	183
Evaporated milk .. .. „ „	217	273	708	472
Eggs in the shell .. .. „ doz.	1,445	1,440	42,243	39,597
Eggs, dried .. .. „ lb.	[5]	18,988	24,850	11,206
Fresh apples .. .. „ bbl.	2,135	1,025	572	1,577
Dried apples .. .. „ lb.	1,367	4,178	6,369	131
Canned apples .. .. „ „	11,746	1,149	3,288	4,049

[1] Export clearances and imports into the United States, crop years beginning August 1. [2] Average 1936-39. [3] Preliminary. [4] All classes on dressed carcass basis. [5] No exports shown.

SOURCE: Quarterly Bulletin of Agricultural Statistics, Ottawa, Dominion Bureau of Statistics.

TOTAL ACREAGES AND VALUES OF FIELD CROPS IN CANADA, 1943-46

Canada	*Areas*	*Values*
	(*acres*)	($'000)
1943	59,705,500	1,189,229
1944	62,673,050	1,375,065
1945	62,782,000	1,149,685[a]
1946	63,282,000	1,245,254

[a] Final estimate.

SOURCE: Quarterly Bulletin of Agricultural Statistics, Dominion Bureau of Statistics, Ottawa.

Agricultural Co-operation in Canada

History.—In the pioneering of any country, community life prevails and instances of co-operation among early settlers in Canada can be found almost as far back as the 17th century. There was, however, no concerted organisation until about 1870. A Canadian farmers' organisation, the Dominion Grange, was set up by Dominion Charter in 1870 but was short-lived after some activity chiefly in Ontario and Manitoba. This was followed closely by the Patrons of Industry which disappeared in 1900. It was left to the western grain areas to produce the first real business organisation when in 1906 the Grain Growers Grain Company was set up to handle wheat and grain on a co-operative basis. This was followed by the organisation of the Saskatchewan Co-operative Elevator company in 1910 and the Alberta Farmers Co-operative Elevator Company in 1913.

Other companies organised on provincial lines also appeared: The United Farmers' Co-operative Company Limited in Ontario in 1914 and the Co-operative Fédérée de Québec in 1922. In the fruit growing areas of Canada the United Fruit Companies of Nova Scotia emerged in 1912 and the Okanagan United Growers of British Columbia in 1913.

Organisation crossed provincial boundaries in 1917 when the Grain Growers Grain Company and the Alberta Farmers Co-operative Elevator Company amalgamated to form the United Grain Growers Limited. On a national basis the Canadian Co-operative Wool Growers Limited was formed in 1918 with branches in all provinces. During the past three decades these early national organisations have proved a bulwark to co-operative organisation in this country. The three great western wheat pools have survived the vicissitudes and reverses of grain trade through the years. They have profited from adversity by strengthening their foundations and are looking forward to further expansion.

In 1930 a movement of education in co-operation was launched in the eastern maritime provinces and as a result a new drive was imparted to the co-operative movement in Canada. New organisations have been fostered in every province and increased activity in all lines has provided new and revised legislation by provincial governments which is designed to foster and encourage organisation.

Legislation.—There is no Dominion Act providing for the incorporation of co-operative associations. However, incorporation can be had under the Dominion Companies Act and the co-operative nature of the company is set out in the by-laws. In some cases, special Acts of Parliament have been passed for co-operative associations. Now, every province has in its statutes legislation governing the incorporation of agricultural co-operative associations and co-operative societies for the production and distribution of commodities. Some provinces have more than one Act but Alberta recently consolidated three Acts into one.

The Royal Commission on Co-operatives.—As a result of co-operative expansion and activities in the last ten years certain anomalies and inadequacies with respect to income and excess profits taxes became apparent and representations were made to have the pertinent sections of the tax legislation amended in order to clarify the tax postition of co-operatives. A Royal Commission was authorised to inquire into the situation and the report of the Commission was tabled in the House of Commons at the end of November 1945. Amendments to the Income War Tax Act relative to co-operatives were initiated and passed by Parliament in August 1946.

The Co-operative Union of Canada.—The Co-operative Union of Canada is a federation of provincial co-operative unions. When first organised in 1909 its membership consisted of individual associations but this was changed in 1945. Now the local associations join a provincial union which is the representative of the province in the national organisation.

The Co-operative Union intends to expand its work of publicity, education, planning, organisation, supervision and legal protection and also act as a liaison body in international co-operative affairs. The work of the Union will be co-ordinated closely with that of the Canadian Federation of Agriculture.

Co-operative Business Organisations in Canada.—In 1946 there were more than 1,900 co-operative associations in Canada.[1] The great majority of these are farmer-owned and operated since the natural background of this country is agriculture. In recent years progress has been noted among consumers in industrial areas. A summary of the annual statements is given on page 291. It should be noted, however, that while growth and progress is quite evident, some increases from year to year are the result of progressively increasing coverage and more accurate reporting. Also it should be remembered that the figure for membership includes much duplication since a farm operator may, and often does, belong to more than one association.

Financial Condition, 1946.—Total assets of Canadian co-operatives in 1946, after making provision for bad debts and depreciation, amounted to $163,467,434 of which the book value of plant and equipment was $46,775,158. The members' equity amounted to $92,455,174 consisting of paid-up share capital of $19,580,322 and reserves and surplus of $72,874,852. This was an increase of $8,681,023 in net worth over 1945. Working capital also increased from $40,725,825 in 1945 to $45,680,016 in 1946. The relation of net worth to total assets increased from 49 per cent in 1945 to 57 per cent in 1946. This is accounted for by decreases in inventory especially by the grain marketing associations.

Analysis of Total Business.—In 1946 Canadian co-operatives marketed over $450 million of farm products (page 292). This amount of business was done by 1,080 associations which reported. Associations handling merchandise and farm supplies numbered 1,446 and the total value of this type of business was $95,603,311 which was an increase of $14,242,456 over 1945. Value of sales of farm products in 1946 decreased by $45,916,700. Sales during 1945 totalled over $500,000,000. The decrease was most noticeable in grains, livestock, and fruits and vegetables. In total it is estimated that about 28 per cent of the main farm products was handled by co-operatives at some stage of the complete marketing process. Of all the commodity marketing groups the grain growers are the most highly organised and approximately 50 per cent of all commercial marketings of grain passed through co-operative channels.

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[1] As reported by the Economics Division, Marketing Service, Department of Agriculture, Ottawa.

Consumers' Co-operative Stores.—In 1946 there were 1,091 Consumers' Co-operative stores with 166,030 members. Total value of retail sales amounted to $45,893,742. The estimated total of retail trade in Canada for 1946 was $5,506 million. Co-operatives thus account for ·8 per cent of retail sales. This is an increase of ·2 per cent over the figures of the 1941 census but the increase results from more accurate reporting rather than from an actual increase of business done in relation to the total retail trade of Canada.

Credit Unions (*caisses populaires*).—This is a form of co-operative banking. Introduced into the province of Quebec in 1900 it spread to the other provinces from 1930 onwards and in 1946 there were over 2,400 of these co-operative credit institutions all over the country. Total assets were well over $187 million and in 1946 loans totalling $53 million were made. Total membership of these credit societies in Canada was about 680,000. Quebec leads all provinces in numbers, members and total assets, followed by Ontario and Saskatchewan.

In Quebec, these caisses populaires are an extremely important factor in the rural economy. Organised to promote thrift and to provide a ready source of short term credit the total assets of the " caisses " in 1946 amounted to $152,000,000. Over 900 " caisses " loaned approximately $30,000,000 to members for " provident and productive purposes." Development here has been mostly in rural areas and loans were made mostly to farm people for agricultural purposes. It is estimated that the distribution of credit unions in Canada is about equal as between rural and urban.

Insurance.—Mutual fire insurance is one of the oldest forms of co-operation in Canada. Reports of the various provincial superintendents of insurance indicate over 400 such mutuals in Canada with a net amount of insurance at risk $1,554 million. Net losses paid in 1945 were over $3 million. There is a co-operative life insurance company in Saskatchewan which has recently applied for a Dominion charter which will allow it to write life insurance in other provinces.

Miscellaneous.—Co-operative methods and principles have been applied to almost every form of enterprise. Besides those already mentioned co-operatives have been formed to provide telephone service, medical services and health plans, transportation, housing, burial services, restaurants, and laundries.

Perhaps two of the most important recent developments are the co-operative farms in Saskatchewan and co-operatives for the provision of rural electrification in Quebec.

The co-operative farms in Saskatchewan are promoted and aided by the provincial Department of Co-operation and Co-operative Development and many of the co-operators are veterans.

The Quebec legislature recently set up a rural electrification board which will assist rural groups to organise co-operatively to provide themselves with electricity on the farmstead. For this purpose the Board has the power to draw on a fund of twelve million dollars. As yet the Board has not reported on its first year of operation.

Wartime Agriculture

The principal agricultural adjustment problem of the war was to reduce the production of wheat, to increase the production of feed grains, and to step up the output of livestock, livestock products and certain other commodities in short supply. It is estimated that total production during the 1940-45 period increased over the immediate pre-war years by approximately 50 per cent. The peak year for total output was 1942. Output of livestock and livestock products showed the greatest relative increase and by 1944 marketings of cattle, hogs, lambs and sheep, were up 41·6 per cent, 139 per cent, and 40 per cent, respectively, over the immediate pre-war year 1939; and production of milk and eggs increased by approximately 11 per cent and 63 per cent respectively, during the same period. In 1945 marketings of livestock showed a decline.

STATISTICAL SUMMARY OF CO-OPERATIVE BUSINESS ORGANISATIONS IN CANADA, 1932-46

Year Ended July 31	*Associations*	*Places of Business*	*Shareholders or Members*	*Patrons*	*Sales of Farm Products*	*Sales of Supplies*	*Total Business Incl. other Revenue*
	No.	*No.*	*No.*	*No.*	$	$	$
1932	795	3,501	379,687	417,000	134,611,154	10,665,503	145,303,954
1936	781	3,186	366,885	406,321	144,962,609	12,788,192	158,165,565
1939	1,332	3,791	445,742	486,589	180,747,471	20,400,008	201,659,984
1940	1,151	3,657	450,453	462,296	214,293,359	21,129,822	236,322,466
1941	1,395	4,005	451,685	507,223	215,030,410	25,895,374	242,158,305
1942	1,722	4,291	561,314	620,034	214,762,980	42,327,447	257,090,427
1943	1,650	4,406	585,826	608,680	295,499,274	55,689,141	352,785,598
1944	1,792	4,534	690,967	719,080	459,798,798	65,508,771	527,855,540
1945	1,824	4,441	739,804	738,345	500,481,627	81,360,855	585,650,066
1946	1,953	4,488	926,863	922,928	454,564,927[1]	95,603,311[1]	554,329,652

[1] Analysed by commodities in following table.

SOURCE: Economics Division, Marketing Service, Department of Agriculture, Ottawa.

PRODUCTS MARKETED, MERCHANDISE AND SUPPLIES HANDLED BY CO-OPERATIVE BUSINESS ORGANISATIONS IN CANADA, 1945-46

	Associations[1]	*Value of Sales*
	No.	$
MARKETING—		
Dairy Products	581	76,886,462
Fruits and vegetables ..	183	30,701,682
Grain and seed	98	205,340,212
Livestock	312	83,023,834
Eggs and poultry	247	23,961,207
Honey	6	1,153,415
Maple products	1	794,285
Tobacco	6	27,624,924
Wool	13	2,135,367
Fur	3	1,609,470
Lumber and Wood ..	6	100,229
Miscellaneous	28	1,233,840
TOTAL VALUE OF PRODUCTS MARKETED		454,564,927
NO. OF ASSOCIATIONS MARKETING—1,080		
MERCHANDISING—		
Food Products	427	24,886,273
Clothing and home furnishings	323	3,915,741
Petroleum products and auto accessories	585	13,265,374
Feed, fertiliser or spray material	889	38,043,432
Machinery and equipment	341	1,267,160
Coal, wood and building material	503	4,992,761
Miscellaneous	734	9,232,570
TOTAL VALUE OF MERCHANDISE AND SUPPLIES HANDLED ..		95,603,311
NO. OF ASSOCIATIONS MERCHANDISING—1,446		
TOTAL SALES OF FARM PRODUCTS AND SUPPLIES		550,168,238
NO. OF ASSOCIATIONS REPORTING—1,953		

[1] Duplication exists in this column since some associations market produce as well as handle supplies. Some market more than one product and some handle many of the supplies listed.

SOURCE.—Economics Division, Marketing Service, Department of Agriculture, Ottawa.

As important as the increase in total output was the change in the pattern of production. On the prairies the livestock population expanded rapidly. Course grains were grown in place of wheat but a shift back to wheat production occurred in 1946. A greater acreage was planted in oil-bearing crops. In Ontario and Quebec, the great dairy producing areas of Canada, the outstanding features in the wartime utilisation of milk were the marked increases in liquid sales and the greater output of cheese and concentrated milk, largely for export. There was a moderate increase in creamery butter output but a marked decline in dairy butter. In the Maritimes the shift was to livestock. The Province of British Columbia expanded its seed growing industry.

Increased domestic consumption of foods was brought about by high employment and earnings. The dietary standards improved because of increased consumption, education and organised feeding in the armed services and plant cafeterias. By 1944 consumption of dairy products had increased by 20 per cent over the pre-war period 1935-39; of meat by 26 per cent; of eggs by 19 per cent; of potatoes by 9 per cent; of tomatoes and citrus fruit by 86 per cent; and of leafy green and yellow vegetables by 6 per cent. Only foods in short supply such as fats and oils showed a decline in 1945 and 1946.

Rationing was extended to domestic products which were in short supply because of increasingly heavy demands of the armed forces international relief and the growing domestic demand. This was the principal reason for the rationing of manufactured dairy products—butter and evaporated milk—and meat. Other products rationed were tea, coffee, sugar, jams, jellies and canned fruits.

Canadian exports were modified by temporary conditions, for example, the disruption of trading relations between countries, the peculiar importance of shipping space and of distance, and mutual aid. Total value of exports of all products of farm origin in 1945 amounted to over a billion dollars, an increase of almost 245 per cent over the total exported in 1939.

One of the great positive measures of Canadian war policy was the Mutual Aid Act. The essential feature of the mutual aid legislation, like that of the Lend-Lease Act in the United States, was to facilitate the transference to other allied nations of food and war supplies needed in the prosecution of the war.

The farm physical plant increased in size only to a limited extent. The increase in livestock inventory was great, and in crop inventory moderate. There were practically no increases in buildings. Land values went up; the average value per acre of occupied farm land rising from $25 in 1939 to $30 in 1944. Farmers bought almost $300 million worth of machinery and implements in the 1940-44 period. Lack of adequate supplies prevented even greater purchases.

The farm business as a whole, despite its response to wartime activities, seems to have been conservatively managed in the war period. Farmers have not borrowed as much as they did during the previous war. They used their increased incomes to pay their debts and to put their businesses in a generally stronger position. It is estimated that in the years between 1939 and 1944 farmers reduced their total indebtedness by about $326 million or 32 per cent. Each of the provinces showed a substantial reduction, the greatest decrease occurring on the Prairies.

Many major changes in farm organisation during the war period were made by farmers as a result of labour shortages. The farm operator worked harder—more hours per day, and more days per week. Operators nearing the normal retiring age stayed on. Increased use was made of power machinery and equipment, fertilisers and better varieties of seeds.

Much of the increased output per worker was made through more effective use of farm machinery. Wartime conditions stimulated improved methods of getting the most done with each machine and vocational training programmes assisted less skilled labour to make better use of the newer types.

Agriculture felt mainly the influence of wartime buying and of credit expansion incidental to war financing, though this influence was modified by the restraints of the price stabilisation and control programme. The flow of funds into and out of agriculture was enlarged. As usual, while a war is in full blast, the stimulating forces predominated. Between 1939 and 1944 Canadian national income increased by an estimated $5·4 billion, or an increase of about 128 per cent. This rise was due to the increased spending by government and industry on war supplies and new capital. Dominion Government expenditures on total war requirements rose from $246 million in 1940 to $4·9 billion in 1944. Cash farm income increased from $765·8 million in 1940 to $1·7 billion in 1944.

Farm Supplies and Farm Labour.—The need for increasing agricultural production to the utmost and the scarcity of farm labour greatly enhanced the importance of farm machinery, feeds and other supplies. Shortages of raw materials invaded every sector of this field—metal for implements, chemical and mineral products for feeds, fertilisers and pesticides, sisal fibre for bindertwine and hemp for rope, gasoline, tyres, and trucks for deliveries—were all in short supply. Action was taken by the Dominion Department of Agriculture to procure essential supplies of these goods, to distribute them where they were most urgently required, and to keep down their cost.

The difficulty in obtaining new farm machinery complicated the farmer's task of expanding production. In the depression years of the early 30's, farm machinery on many Canadian farms fell into disrepair; machinery which was worn out was not replaced to the extent that was needed for an all-out production programme. With the outbreak of war, manufacturers of farm machinery switched their plants to the more immediate task of munitions manufacture, and the existing equipment on Canadian farms was called on to set the greatest food production records in the country's history.

The highlights of the farm machinery policy were (a) rationing, and (b) removal of import duties.

Under the rationing system set up for farm machinery, manufacturers and importers were required to make equitable allocation of the available supply to each province. A farm machinery ration officer, thoroughly conversant with farm conditions and the agricultural implement business, was attached to the Wartime Prices and Trade Board in each province. Ration advisory Boards advised the local rationing officer on applications from farmers. Members of the boards were leading farmers and other men interested in agriculture.

In the development of adequate feed supplies, stress was placed on the direction of land use in Western Canada. One of the first steps was the Wheat Acreage Reduction Programme which aimed at reducing the wheat acreage and increasing the coarse grain acreage. This change in western land use was complemented by a plan of fertiliser subventions designed to encourage the use of fertilisers for coarse grains and forage crops in the feed deficiency areas of Eastern Canada and British Columbia. Imports of potash and certain other fertilisers were subsidised and a domestic freight subvention was paid from manufacturing plants to points in the six non-prairie provinces.

Along with the developments of measures concerned with supplies of animal feeds and the establishments of a livestock-feed price relationship (maximum and minimum prices of feeds in relation to livestock prices), problems of distribution arose as a result of the location of feed supplies in relation to livestock and physical elements of Canada's transportation systems and manpower. With the large supplies of feed grains concentrated in the West and with all the Canadian provinces asked to expand livestock, it was early apparent to the Dominion Department of Agriculture that some incentive was necessary to improve the distribution of western feed grains among the other six provinces. This resulted in the feed freight assistance programme, Plan A, and Plan B. In addition, control was exercised over exports of feed stuffs; imports of essential feed ingredients were subsidised.

To assist in obtaining maximum crop yields and thus make the most economic use of productive resources, every effort was made to provide farmers with ample supplies of artificial fertilisers to supplement green and other manures normally added to the soil. As a result of subventions and other policies, the application of artificial fertilisers reached a high level. Sales during the war years were well above those of the pre-war period.

The reduction by about $2 per ton in the price of fertiliser, to the farmer in the five eastern provinces, and British Columbia was made possible by the following measures: the reduction of the number of analyses of mixed commercial fertilisers, the limitation of packing to certain sizes of bags, the printing restriction on bags to certain colours and designs, the elimination of extra transportation and selling costs, and finally, other economies effected by a zoning plan whereby fertiliser manufacturers were assigned to zones, thereby eliminating considerable cross-haulage.

Canada's total manpower resources had to be marshalled to serve the purpose of building a powerful fighting force and producing a maximum of war materials and food; mobilising manpower involved the shifting of people from established places and occupations to the armed forces, to the war industries, to the food processing industry, to agriculture, and preventing them from leaving preferred occupations. Due to the limited labour supply for all industries and the seasonal nature of farming, many labour requirements had to be met by moving farm labour from areas where it could be spared to those where help was urgently needed.

Agriculture, as a whole, prior to the outbreak of the war, was chronically oversupplied with manpower. During the war years the labour shortage became acute on the larger dairy farms and on vegetable and fruit farms with strong seasonal labour demands, on larger farms having regular help, and on farms depending on family help. Mobilisation for war, however, went a long way in diminishing the overlarge supply and thus the underemployed labour in agriculture. The distribution of Canada's labour force between agriculture and other occupations improved in the period between 1939 and 1945. The application of National Selective Service regulations to agriculture in 1942 did succeed in curtailing the heavy movement of men and women away from the farms to employment in other industries.

Fuller use of human resources took three main forms (a) virtual elimination of unemployment, (b) recruitment of additional persons into the labour forces, and (c) increase in working hours.

The problem of providing assistance in the placement of farm-labour during the war years was effectively met through co-ordinated Dominion-Provincial effort.

The Dominion-Provincial Farm Labour Agreements enabled some provinces, because of the financial assistance received from the Dominion Department of Labour, to increase the number of trained men in the field. The shortage of labour was serious during peak periods, particularly for harvesting, and efforts were largely centred on supplying additional labour to meet requirements at these peak seasons. Examples of such movements included the transfer of prairie farm workers after seeding and summer fallowing was well advanced in the West, to Ontario to help with haying and early harvesting; harvesters from central Canada to the Prairies for grain harvesting and the transfer of women from Alberta and Saskatchewan to British Columbia for fruit picking. By special arrangements with the railways, the round trip transportation for all these large scale movements was obtained at the price of single fare tickets. The armed services were used when possible; so were prisoners-of-war, Japanese internees and conscientious objectors.

This method of co-operation, developed between the Dominion and the provinces, provided a satisfactory means of bringing the employment service in close touch with farmers.

Price Stabilisation.—The fixing of maximum prices on food and farm products and the supporting of prices of selected farm products were the most important wartime controls affecting agriculture.

The special wartime feature of the price situation was, of course, the extent to which the government shaped it. As the largest single buyer of commodities and also as the authority for seeing that production developed in the right direction, the government largely supplanted the normal interplay of purely economic forces. It had to see that prices were high enough to encourage production and yet not out of line with the announced fiscal and monetary policy. The success of the war food programme depended in large part upon the wise use by the government of its price controls. The machinery it used consisted of price ceilings, price supports, subsidies, and an enforcement agency.

Concurrently with the establishment of price supports the government entered into the market as a heavy purchaser of foodstuffs and other agricultural commodities. These purchases were made not only for the armed forces but also for shipment under export agreement and mutual aid. The purchase price set by the government took into account the price stabilisation programme and the importance of stimulating agricultural output.

Where the government deemed that a fair relationship did not exist between the prices of farm products and other products, and where production was considered essential in the war effort, it followed a policy of making up the difference by payment of direct and indirect subsidies to agricultural producers or allowing a controlled rise in the prices of farm goods. To reduce the retail prices of imported and domestic food products of widespread consumer use, the government resorted to reduction of excise taxes and import duties, and to consumer subsidies.

The prices of both manufactured goods and farm products by V-E day were appreciably above the 1935-39 averages. Most of the increase in the latter has occurred after the establishment of the price ceiling in the fall of 1941, while prices of manufactured goods were successfully checked at their basic period levels after having risen 28 per cent during the first two years of the war. Both series have virtually recovered to the levels of 1926-29, a time of general prosperity in Canada.

Of even greater significance, however, was the notable reversal since the end of 1942 in the relationship of farm product prices to prices of manufactured goods. Except for a brief period during 1937, farm prices had been depressed relative to other prices for a period of twelve years prior to the end of 1942. The favourable relationship with other prices, enjoyed by the farm population during the latter part of the twenties, was restored for a little more than two years. It is important to note that this condition was restored not only at a time of exceptional demand for agricultural output, but also during a period of anti-inflationary government controls. The reasons for the outstanding advance in farm product prices are to be found in the difficulties of placing ceilings on farm commodity markets, in the need to encourage greater farm output in the face of a critical shortage of farm labour, and in the relatively low level of farm product prices at the time when overall ceilings were imposed.

Boards and Administrators.—Another important development of the war period was the marked increase in governmental control and direction of economic activity, agricultural and industrial. To mobilize Canadian agriculture for war meant a readjustment in the ways of producing, distributing and consuming farm products. Planning was needed to map out the food needs, the successive stages in modifying consumption, the building of stockpiles, and the adjusting of production.

The complex problems of organising supplies, administering price policy, guiding agricultural production, conserving farm supplies and providing for equitable distribution of agricultural commodities at home and abroad, resulted in the formation of boards and committees and the appointment of co-ordinators and administrators. They represent the wartime mechanisms of agricultural policy.

The formulation of policy rested with Cabinet and Parliament. The Departments of Agriculture, Finance, Trade and Commerce, and Labour, were assigned the task of putting into action policies set forth. In broad terms, the Department of Agriculture was responsible for the maintenance of production; the regulation of marketing and the enforcement of quality standards; the Department of Finance was responsible for prices and distribution; Trade and Commerce was responsible for the marketing of wheat specifically, for matters having to do with exporting,[1] and the Department of Labour was responsible for the allocation of workers. The first three departments co-operated in the determination of production and price policies. To facilitate the carrying out of its responsibilities the Department of Agriculture set up the Agricultural Supplies Board, the Agricultural Food Board, the Meat, Dairy Products and Special Products Boards, and appointed a number of administrators; the Department of Finance set up the Foods Administration under the Wartime Prices and Trade Board; and the Department of Trade and Commerce acted through the Canadian Wheat Board, The Export Permit Branch and the Canadian Shipping Board. In the Department of Labour, the National Selective Service had the direct responsibility for the allocation of farm labour. It should be noted that with the exception of the Canadian Wheat Board, the agencies in the departments other than agriculture did not deal

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[1] Due to war conditions, the Dominion Department of Agriculture supervised the export of agricultural products under contract, for example bacon, beef, cheese, evaporated milk, eggs, and certain fruits and vegetables.

PRODUCTION AND UTILISATION OF MILK IN CANADA, 1920-47

Year	Total Milk Production	Total used in Manufacture	Milk Used in the Manufacture of Dairy Products								Total otherwise used	Fluid Sales	Farm home consumed	Fed on Farm
			In Factories					On Farms						
			Total in Factories	Creamery Butter	Factory Cheese[1]	Concentrated Milk Products	Ice Cream	Total on Farms	Dairy Butter	Farm-made Cheese				
	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*
1920	10,976,236	7,008,534	4,579,915	2,614,703	1,671,061	203,412	90,739	2,428,619	2,422,643	5,976	3,967,702	1,565,035	1,539,213	863,454
1921	11,897,545	7,606,276	5,086,185	3,013,911	1,815,716	170,921	85,637	2,520,091	2,513,742	6,349	4,291,269	1,700,257	1,662,319	928,693
1922	12,107,683	7,814,247	5,297,507	3,570,070	1,521,196	130,967	75,274	2,516,740	2,510,067	6,673	4,293,436	1,728,274	1,697,101	868,061
1923	12,807,618	8,367,854	5,771,567	3,811,958	1,698,193	173,234	88,182	2,596,287	2,589,380	6,907	4,439,764	1,825,885	1,796,988	816,891
1924	13,183,714	8,675,818	6,127,850	4,187,907	1,676,724	176,895	86,324	2,547,968	2,540,804	7,164	4,507,896	1,860,444	1,855,362	792,090
1925	13,420,984	8,724,930	6,232,248	3,967,877	1,983,958	187,791	92,622	2,492,682	2,485,378	7,304	4,696,054	1,889,198	2,033,754	773,102
1926	13,475,614	8,798,831	6,360,931	4,148,469	1,923,394	180,703	108,365	2,437,900	2,430,379	7,521	4,676,783	1,896,115	2,044,898	735,770
1927	12,914,586	8,403,342	6,011,305	4,143,077	1,546,237	204,694	117,297	2,392,037	2,384,215	7,822	4,511,244	1,839,013	1,945,823	726,408
1928	12,708,158	8,218,953	5,883,786	3,933,513	1,619,348	197,003	133,922	2,335,167	2,326,954	8,213	4,489,205	1,814,454	1,910,517	764,234
1929	12,410,443	7,959,304	5,678,493	3,998,668	1,329,958	195,949	153,918	2,280,811	2,272,128	8,683	4,451,139	1,760,806	1,894,330	796,003
1930	13,071,421	8,328,595	6,036,332	4,348,432	1,333,978	201,406	152,516	2,292,263	2,283,157	9,106	4,742,826	2,524,288	1,444,538	774,000
1931	14,339,686	9,170,820	6,853,235	5,289,612	1,276,315	157,948	129,360	2,317,585	2,307,993	9,592	5,168,866	2,759,321	1,593,545	816,000
1932	13,997,328	8,927,305	6,603,534	5,009,790	1,349,872	146,864	97,008	2,323,771	2,313,495	10,276	5,070,023	2,699,411	1,569,252	801,360
1933	14,083,977	8,951,784	6,619,777	5,132,234	1,244,841	152,786	89,916	2,332,007	2,321,032	10,975	5,132,193	2,688,035	1,594,318	849,840
1934	14,452,262	9,197,922	6,870,479	5,497,908	1,112,682	165,822	94,067	2,327,443	2,315,837	11,606	5,254,340	2,786,248	1,646,452	821,640
1935	14,562,026	9,338,390	7,044,893	5,639,909	1,124,787	176,705	103,492	2,293,497	2,281,233	12,264	5,223,636	2,773,175	1,655,861	794,600
1936	15,122,426	9,783,709	7,538,392	5,874,313	1,334,183	200,254	129,642	2,245,317	2,233,432	11,885	5,338,717	2,828,751	1,697,646	812,320
1937	15,125,223	9,872,942	7,667,644	5,783,598	1,463,009	275,010	146,027	2,205,298	2,194,079	11,219	5,252,281	2,774,427	1,676,374	801,480
1938	15,819,707	10,240,206	8,099,206	6,258,600	1,388,479	311,598	140,529	2,141,000	2,130,545	10,455	5,579,501	3,013,270	1,789,911	776,320
1939	15,781,104	10,204,115	8,147,108	6,264,810	1,405,324	334,749	142,225	2,057,007	2,047,416	9,591	5,576,989	3,011,515	1,790,754	774,720
1940	15,999,256	10,368,861	8,387,298	6,197,180	1,627,793	388,902	173,423	1,981,563	1,972,437	9,126	5,630,395	3,017,636	1,809,839	802,920
1941	16,549,902	11,053,758	9,106,560	6,691,707	1,700,893	491,332	222,628	1,947,198	1,938,255	8,943	5,496,144	3,118,839	1,641,150	736,155
1942	17,488,589	11,626,012	9,778,925	6,662,284	2,323,231	554,215	239,195	1,847,087	1,838,270	8,817	5,862,577	3,387,945	1,674,065	800,567
1943	17,518,973	11,313,978	10,008,382	7,297,119	1,862,270	578,107	270,886	1,305,596	1,297,078	8,518	6,204,995	3,706,513	1,714,112	784,370
1944	17,624,038	11,202,672	9,916,519	6,994,377	2,037,877	606,722	277,543	1,286,153	1,277,719	8,434	6,421,366	3,912,476	1,717,191	791,699
1945	17,626,772	11,106,495	9,849,786	6,883,992	2,103,517	628,607	233,670	1,256,709	1,248,421	8,288	6,520,277	4,007,858	1,716,296	796,123
1946	16,955,553	10,150,521	8,871,785	6,361,034	1,660,009	624,546	226,196	1,278,736	1,270,492	8,244	6,805,032	4,254,000	1,740,072	810,960
1947	17,213,987	10,511,253	9,184,017	6,814,405	1,367,674	665,980	335,958	1,327,236	1,318,992	8,244	6,702,734	4,162,539	1,722,923	817,272

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[1] Includes milk used in Cheddar cheese and in whole milk cheese other than cheddar.

solely with agriculture but with many other aspects of the economic activity.

In addition to the agencies mentioned above, a number of over-all committees were appointed to co-ordinate war production programmes. Advisory committees were named to work with some of the wartime boards. These committees consisted in the main of representatives of the farmers and the trade. The Canadian Federation of Agriculture, a national federation of provincial, interprovincial, and national organisations of agricultural producers, had a voice in the formation of advisory committees on which agriculture is represented either by Federation members or Federation nominees.

The personnel of the new war agencies in the Department of Agriculture was recruited mainly from the peacetime civil service of the Department. The staff of each agency was supplemented by technical personnel drawn from the livestock packing, dairy and other food handling and processing industries, from the grain and feed trade, and from the railways. The membership of the new Boards was, with a few exceptions, made up of senior civil servants in the Department.

The Wartime Prices and Trade Board was made up of senior civil servants representative of the Departments affected by the activities of the Board. The technical personnel of the Foods Administration came mainly from the food trade, and to some extent, from the universities. The latter group functioned in a research and advisory capacity.

The power necessary to establish the machinery for the prosecution of the war in all its phases—on the economic and military fronts—was available to the Dominion Government. Because of the experience of the First World War the Dominion Administrative agencies were prepared for an immediate centralising of emergency powers in Ottawa. The War Measures Act first adopted in 1914, had never been repealed and only needed to be proclaimed by Governor General in Council in order to vest in the Dominion Cabinet almost unlimited power over every every matter deemed "necessary or advisable for the security, defence, peace, order, and welfare of Canada." The proclamation of the Act on September, 1 1939, brought about a change in the relationship as between the Dominion and the provinces—The Dominion Government superseding provincial authority where and when necessary—and as between the parliament and the Cabinet executive. The Act thus removed any constitutional

WHEAT[1] FED TO LIVESTOCK AND POULTRY IN CANADA BY PROVINCES, CROP YEARS 1945-1946 AND 1946-47

	Production 1945	*Fed to Livestock and Poultry Crop Year 1945-46*		Production 1946	*Fed to Livestock and Poultry Crop Year 1946-47*	
		% of 1945 Crop	*Quantity*		*% of 1946 Crop*	*Quantity*
	'000 *bus.*	%	'000 *bus.*	'000 *bus.*	%	'000 *bus.*
P. E. Island ..	80	74	59	78	90	70
Nova Scotia ..	21	82	17	25	88	22
New Brunswick ..	41	75	31	34	85	29
Quebec	398	83	330	389	87	339
Ontario	20,828	65	13,538	17,110	68	11,636
Manitoba ..	38,800	10	3,900	61,000	10	6,000
Saskatchewan ..	168,100	6	10,600	208,000	6	11,800
Alberta	87,700	11	9,600	131,000	7	9,500
British Columbia	2,544	63	1,603	3,089	93	2,868
CANADA ..	318,512	12	39,678	420,725	10	42,264

[1] Figures in this table do not include wheat shipped from one province to another and used for feed.

CASH INCOME FROM THE SALE OF FARM PRODUCTS

PERCENTAGE DISTRIBUTION BY COMMODITY GROUPS CANADA 1926-1938-1947[1]

	1926	1938	1947
	per cent	*per cent*	*per cent*
GRAINS, SEEDS AND HAY			
Wheat	43·78	28·39	21·15[2]
Oats	2·84	1·82	3·18
Barley	2·53	2·23	3·63[3]
Rye	0·63	0·11	1·63
Flax	0·70	0·13	2·29
Corn	0·05	0·05	0·31
Clover and grass seed ..	0·24	0·45	0·42
Hay and clover	1·11	0·51	0·28
TOTAL GRAINS, SEEDS AND HAY	51·88	33·69	32·89
VEGETABLES AND OTHER FIELD CROPS			
Fibre Flax	—	[4]	0·04
Potatoes	2·97	1·38	2·07
Vegetables	1·09	2·14	2·29
Sugar beets	0·24	0·51	0·44
Tobacco	0·77	3·05	2·43
TOTAL VEGETABLES AND OTHER FIELD CROPS ..	5·07	7·08	7·27
LIVESTOCK			
Cattle and calves ..	8·79	11·57	12·86
Sheep and lambs ..	0·98	0·94	0·63
Hogs	10·23	11·95	12·46
Horses	0·17	0·26	0·38
Poultry	1·44	3·43	3·31
TOTAL LIVESTOCK ..	21·61	28·15	29·64
DAIRY PRODUCTS ..	11·69	17·90	16·30
FRUITS	1·62	3·38	2·45
OTHER PRINCIPAL FARM PRODUCTS			
Eggs	3·94	4·09	5·22
Wool	0·23	0·20	0·13
Honey	0·24	0·43	0·38
Maple Products ..	0·34	0·39	0·48
TOTAL OTHER PRINCIPAL FARM PRODUCTS ..	4·75	5·11	6·21
MISCELLANEOUS FARM PRODUCTS	1·40	1·55	1·63
FOREST PRODUCTS SOLD OFF FARMS	1·95	2·14	2·78
FUR FARMING	0·04	0·97	0·81
TOTAL CASH INCOMES ..	100·00	100·00	100·00

[1] Computations based upon cash farm income data as issued by the Agricultural Division, Dominion Bureau of Statistics, Ottawa, 1926-47.

[2] Includes Participation Certificates.

[3] Includes Adjustment Payments.

[4] Included in Miscellaneous.

[5] Differences in totals due to approximation.

barrier to federal war plans. The Act itself was an enabling statute. It did not order things to be done, but authorised the Dominion executive to issue regulations —Orders in Council—having the force of law.

In the international field Canadian agriculture was represented by membership on the Combined Food Board and its various Committees at Washington. To deal with allocations at the policy making level an interdepartmental group known as the Food Requirements Committee was established. As between the United States and Canada co-ordination of production had to be aided by the adoption of policies recommended by joint agricultural and economic committees.

In the administation of policies affecting agriculture, Dominion authorities had the generous support of provincial departments and colleges of agriculture. This was effected through frequent conferences, the development of agricultural objectives and by other means. In carrying the programme to farmers and to those engaged in the marketing of products, the various farm and trade organisations, particularly the Canadian Federation of Agriculture, played an important part. Advisory committees on which representatives of these bodies serve, were effective in aiding the development of sound policies and in insuring their acceptance.

PRODUCTION OF OIL-BEARING SEED CROPS IN CANADA, 1943-47

Year	*Flaxseed*	*Soy Beans*	*Rapeseed*	*Sunflower Seed*
	bu.	*bu.*	*lb.*	*lb.*
1943	17,911,000	569,100	2,822,900	5,302,500
1944	9,668,000	681,820	6,600,000	6,000,000
1945	7,593,000	844,000	10,852,000	2,906,000
1946[1]	6,403,000	1,072,000	13,000,000	13,356,000
1947[1]	11,541,000	806,000	26,235,000	20,000,000

[1] Subject to revision.

EXPORTS, IMPORTS AND DOMESTIC DISAPPEARANCE OF AGRICULTURAL PRODUCTS AS PERCENTAGES OF PRODUCTION, CANADA, 1935-1943

Year	*Exports*	*Imports*	*Domestic Disappearance*[1]
	per cent	*per cent*	*per cent*
1935 ..	33·50	4·11	79·05
1936 ..	40·66	6·27	78·68
1937 ..	24·98	7·87	79·50
1938 ..	22·26	4·75	74·34
1939 ..	22·03	4·34	68·42
1940 ..	22·71	5·38	67·51
1941 ..	26·03	5·41	81·78
1942 ..	22·29	3·93	68·25
1943 ..	44·30	5·01	87·92

[1] Domestic Disappearance plus Exports, minus Imports, does not equal 100 per cent of production because of the influence of year-to-year changes in Stocks.

The enumeration of these various means of regulating the Canadian economy in wartime suggests a high degree of regimentation and control. It is true that control was exercised, and effectively too, in the matter of prices. There was also some direction—and there were certain restrictions—in the matter of marketing and distribution. But as far as the production activities of the individual farmer were concerned there has been no regimentation. Farmers were free to operate their farms as they saw fit. They were influenced in their decisions, however, by government policies and programmes made effective through subsidies, minimum prices and assistance in various forms. To these incentives the response both as regards adjustments and volume of output was very great.

VALUES OF EXPORTS OF CANADIAN FARM PRODUCTS TO ALL COUNTRIES, THE UNITED KINGDOM AND THE UNITED STATES, 1939-46

Item and Year	ALL COUNTRIES	UNITED KINGDOM		UNITED STATES	
		Value	*Proportion of Total*	*Value*	*Proportion of Total*
	$ '000	$ '000	%	$ '000	%
FIELD CROPS					
1939 ..	204,314	89,195	43·7	79,110	38·7
1940 ..	205,706	117,136	56·9	63,357	30·8
1941 ..	272,426	162,621	59·7	73,605	27·0
1942 ..	247,463	107,647	43·5	78,148	31·6
1943 ..	485,780	148,416	30·6	269,207	55·4
1944 ..	725,034	156,683	21·6	446,784	61·6
1945 ..	790,038	231,017	29·2	265,945	33·7
1946 ..	553,185	223,131	40·3	106,208	19·2
ANIMALS AND ANIMAL PRODUCTS					
1939 ..	89,034	58,055	65·2	24,498	27·5
1940 ..	117,476	89,457	76·1	21,057	17·9
1941 ..	144,954	99,229	68·5	30,430	21·0
1942 ..	190,156	138,716	72·9	29,408	15·5
1943 ..	211,891	167,666	79·1	18,337	8·7
1944 ..	301,852	235,306	78·0	26,818	8·9
1945 ..	303,233	217,686	71·8	28,722	9·5
1946 ..	257,164	150,050	58·3	31,315	12·2
ALL FARM PRODUCTS					
1939 ..	293,348	147,250	50·2	103,608	35·3
1940 ..	323,182	206,593	63·9	84,414	26·1
1941 ..	417,380	261,850	62·7	104,035	24·9
1942 ..	437,619	246,363	56·3	107,556	24·6
1943 ..	697,671	316,082	45·3	287,544	41·2
1944 ..	1,026,886	391,989	38·2	473,602	46·1
1945 ..	1,093,271	448,703	41·0	294,667	27·0
1946 ..	810,349	373,181	46·1	137,523	17·0

Disposition of Agricultural Commodities

The following tables show the disposition of field crops, animal products, the more important fruit crops, tobacco honey and maple products for the years 1942-46. They are a continuation of data compiled and published for the years since 1929. The production figures have been adjusted for exports, imports, and changes in stock, where available, in order to show the domestic disappearance of each product. While calculations for animal products have been made on a calendar year basis, those of field crops, tobacco, fruits, honey and maple products have been related to the crop year during which the crop is normally consumed or marketed.

PRELIMINARY ESTIMATE OF ACREAGES AND PRODUCTION OF TOBACCO IN CANADA, BY PROVINCES, 1947, COMPARED WITH THE FINAL ESTIMATE FOR 1946

Province and Type	*Harvested Areas*		*Yields per Acre*		*Total Production*	
	1946	1947	1946	1947	1946	1947
	acres	*acres*	*lb.*	*lb.*	*lb.*	*lb.*
QUEBEC						
Flue-cured	5,429	5,600	712	850	3,865,000	4,760,000
Cigar	4,165[1]	3,500	1,305[1]	900	5,435,000	3,150,000
Large pipe	1,177	1,200	1,280	900	1,507,000	1,080,000
Medium pipe	800	900	920	675	736,000	608,000
Small pipe	250	150	608	400	152,000	60,000
ONTARIO						
Flue-cured	85,852	103,500	1,339	1,150	114,992,000	119,025,000
Burley	10,478[2]	13,500	1,151	1,050	12,058,000	14,175,000
Dark	2,056	2,080	1,201	1,200	2,469,000	2,496,000
Cigar	[3]	800	[3]	1,100	[3]	880,000
BRITISH COLUMBIA						
Flue-cured	151	117	1,126	1,150	170,000	135,000
CANADA						
Flue-cured	91,432	109,217	1,302	1,135	119,027,000	123,920,000
Burley	10,478	13,500	1,151	1,050	12,058,000	14,175,000
Dark	2,056	2,080	1,201	1,200	2,469,000	2,496,000
Cigar	4,165	4,300	1,305	937	5,435,000	4,030,000
Pipe	2,227	2,250	1,075	777	2,395,000	1,748,000
TOTALS, CANADA	110,358	131,347	1,281	1,114	141,384,000	146,369,000

[1] Includes cigar tobacco in Ontario. [2] Of the 14,000 acres planted, 3,522 acres were destroyed by flooding after the date when replanting was possible. [3] Included with Quebec because all Ontario cigar tobacco was purchased by one firm.

DISPOSITION OF TOTAL CANADIAN SUPPLY OF PRINCIPAL ANIMAL PRODUCTS, CALENDAR YEARS, 1942-46

Commodity and Year	*Stocks at Beginning of Period*	*Production*	*Imports*	*Total Supply*	*Exports*	*Stocks at End of Period*	*Domestic Disappearance*[1]
	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*
Butter—[2]							
1942	44,368[3]	365,799	593	410,760	1,601	23,213[3]	385,946
1943	23,213[3]	369,316	1	392,530	9,408	46,451[3]	336,671
1944	46,684	356,013	1	402,698	4,727	41,247	356,724
1945	41,247	349,899	3	391,149	5,598	36,499	349,052
1946	36,499	327,869	26	364,394	4,509	44,279	315,606
Cheese—[4]							
1942	34,728[5]	208,219	858	243,805	141,504	56,478[5]	45,823
1943	56,478[5]	167,035	535	224,048	129,741	39,254[5]	55,053
1944	43,510	182,650	568	226,728	131,429	40,308	54,991
1945	40,308	189,473	649	230,430	135,409	33,742	61,279
1946	33,742	148,059	1,480	183,281	106,495	25,678	51,108
Evaporated Milk—[6]							
1942	22,746	187,375	—	210,121	49,228	16,627	144,266
1943	16,627	180,001	—	196,628	26,738	13,599	156,291
1944	13,599	186,757	—	200,356	27,325	39,722	133,309
1945	39,722	202,902	—	242,624	70,810	22,369	149,445
1946	22,369	195,395	—	217,764	47,187	21,054	149,523

For footnotes see end of table.

DISPOSITION OF TOTAL CANADIAN SUPPLY OF PRINCIPAL ANIMAL PRODUCTS, CALENDAR YEARS, 1942-46—*cont.*

Commodity and Year	*Stocks at Beginning of Period*	*Production*	*Imports*	*Total Supply*	*Exports*	*Stocks at End of Period*	*Domestic Disappearance*[1]
	’000 *lb.*	’000 *lb.*	’000 *lb.*	’000 *lb.*	’000 *lb.*	’000 *lb.*	’000 *lb.*
Beef—[7]							
1942	32,209	743,756	10,948	786,913	15,961	29,204	741,748
1943	29,204	863,175	12,625	905,004	13,549	35,637	855,818
1944	35,637	932,831	12,280	980,748	107,411	31,831	841,506
1945	31,831	1,119,662	1,419	1,152,912	194,754	40,842	917,316
1946	40,842	1,053,339	6	1,094,187	136,063	30,642	927,482
Veal—[7]							
1942	6,237	118,311	[8]	124,548	—	2,308	122,240
1943	2,308	118,209	[8]	120,517	[8]	5,419	115,098
1944	5,419	125,993	[8]	131,412	[8]	5,155	126,257
1945	5,155	141,391	[8]	146,546	[8]	5,348	141,198
1946	5,348	132,022	[8]	137,370	[8]	3,438	133,932
Mutton and Lamb—[7]							
1942	6,861	56,473	2,010	65,344	628	5,054	59,662
1943	5,054	62,092	29	67,175	891	9,419	56,865
1944	9,419	57,727	—	67,146	1,589	6,930	58,627
1945	6,930	69,008	—	75,938	7,951	7,778	60,209
1946	7,778	71,249	—	79,027	11,268	7,072	60,687
Pork—[7]							
1942	71,562	1,188,295	937	1,260,794	537,431	55,650	667,713
1943	55,650	1,394,400	2,306	1,452,356	587,475	85,472	779,409
1944	85,472	1,503,257	665	1,589,394	717,714	48,852	822,828
1945	48,852	1,111,607	17	1,160,476	462,049	33,072	665,355
1946	33,072	993,471	726	1,027,269	297,871	38,675	690,723
Lard—							
1942	6,674	106,372	1	113,047	1,612	2,852	108,583
1943	2,852	119,884	—	122,736	734	5,481	116,521
1944	5,481	140,753	[2]	146,234	32,310	4,961	108,963
1945	4,961	94,328	[9]	99,289	3,110	972	95,207
1946	972	79,023	5,000[10]	84,995	442	1,459	83,094
Wool—[11]							
1942	[12]	16,477	114,428	130,905	384	[12]	130,521
1943	[12]	17,818	104,364	122,182	2,316	[12]	119,866
1944	[42]	19,279	52,690	71,969	15,520	[12]	56,449
1945	[12]	19,626	59,506	79,132	11,927	[12]	67,205
1946	[12]	16,747	100,042	116,789	6,409	[12]	110,380
Poultry—							
1942	20,659	272,014	—	292,673	5,394	14,642	272,637
1943	14,642	298,103	—	312,745	836	25,243	286,666
1944	25,243	314,930	—	340,173	16,117	24,649	299,407
1945	24,649	305,051	163	329,863	11,162	16,369	302,332
1946	16,369	293,232	4,083	313,684	2,211	31,054	280,419
	’000 *doz.*	’000 *doz.*	’000 *doz.*	’000 *doz.*	’000 *doz.*	’000 *doz.*	’000 *doz.*
Eggs—							
1942	5,010	298,660	27	303,697	28,489	5,367	269,841[13]
1943	5,367	323,226	393	328,986	41,111	7,095	280,780[13]
1944	7,095	361,077	17	368,189	62,201	29,776	276,212[13]
1945	29,776	376,455	42	406,273	114,623	16,068	275,582[13]
1946	16,068	344,337	44	360,449	61,347	8,698	290,404[13]

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[1] When data on stocks are not available, it is assumed that there was no change between the beginning and end of the period, and, therefore, the resulting domestic disappearance figure may be considered subject to error to the extent that actual changes in carryover stocks took place. [2] Creamery, dairy, and whey butter. [3] Not including whey butter. [4] Cheddar, farm-made, and factory-produced, whole-milk cheese other than cheddar. [5] Not including stocks in transit. [6] Whole and skim. [7] Production is based on total slaughterings in Canada, not including exports of live animals. Exports and imports of meats include fresh, canned and processed products on a fresh basis. Exports of live animals are not taken into account in these calculations. [8] Quantity small; included with beef. [9] Not available separately; trade figures show a small amount of lard, lard compound and similar substances, cottolene and animal stearine of all kinds, n.o.p., grouped. [10] Estimated. [11] All wool figures are on greasy basis. [12] Information not available. [13] Includes eggs for hatching.

DISPOSITION OF THE TOTAL CANADIAN SUPPLY OF PRINCIPAL FIELD CROPS, CROP YEARS ENDING JULY 31, 1943-47

Crop and Crop Year	*Stocks at Beginning of Period*	*Production*	*Imports*	*Total Supply*	*Exports*	*Stocks at End of Period*	*Domestic-Disappearance*[1]
	’000 *bu.*	’000 *bu.*	’000 *bu.*	’000 *bu.*	’000 *bu.*	’000 *bu.*	’000 *bu.*
Wheat—[2]							
1942-43	427,495	556,684	3	984,182	214,701[3]	598,335	171,146
1943-44	598,335	284,460	433	883,228	343,755[3]	360,450	179,023
1944-45	360,450	416,635	405	777,490	342,945[3]	261,362	173,183
1945-46	261,362	318,512	571	580,445	340,107[3]	76,046	164,292
1946-47	76,046	413,725	16	489,787	242,543[3]	87,062	160,182
Oats—[4]							
1942-43	29,048	651,954	1	681,003	63,323[3]	149,717	467,963
1943-44	149,717	482,022	—	631,739	74,737[3]	108,925	448,077
1944-45	108,925	499,643	—	608,568	85,798[3]	98,706	424,064
1945-46	98,706	381,596	1	480,303	43,861[3]	78,062	358,380
1946-47	78,062	371,069	28	449,159	29,743[3]	68,411	351,005
Barley—							
1942-43	10,821	259,156	—	269,977	33,761[3]	69,278	166,938
1943-44	69,278	215,562	—	284,840	36,103[3]	45,949	202,788
1944-45	45,949	194,712	—	240,661	39,407[3]	28,919	172,335
1945-46	28,919	157,757	—	186,676	4,416[3]	29,937	152,323
1946-47	29,937	148,887	[5]	178,824	6,903[3]	28,636	143,285
Rye—							
1942-43	3,353	24,742	—	28,095	2,004[3]	15,267	10,824
1943-44	15,267	7,143	—	22,410	8,108[3]	5,594	8,708
1944-45	5,594	8,526	—	14,120	6,188[3]	2,024	5,908
1945-46	2,024	5,888	—	7,912	2,968[3]	768	4,176
1946-47	768	8,811	[5]	9,579	5,269[3]	702	3,608
Peas, dry—							
1942-43	[6]	1,692	56	1,748	165	[6]	1,583
1943-44	[6]	1,562	95	1,657	100	[6]	1,557
1944-45	[6]	1,269	95	1,364	145	[6]	1,219
1945-46	[6]	1,363	98	1,461	182	[6]	1,279
1946-47	[6]	2,333	68	2,401	652	[6]	1,749
Beans, dry—							
1942-43	[6]	1,553	39	1,592	467	[6]	1,125
1943-44	[6]	1,407	38	1,445	136	[6]	1,309
1944-45	[6]	1,432	21	1,453	479	[6]	974
1945-46	[6]	1,294	63	1,357	40	[6]	1,317
1946-47	[6]	1,573	72	1,645	251	[6]	1,394
Buckwheat—							
1942-43	[6]	5,207	—	5,207	40	[6]	5,167
1943-44	[6]	6,243	—	6,243	—	[6]	6,243
1944-45	[6]	5,553	—	5,553	—	[6]	5,553
1945-46	[6]	5,246	—	5,246	1	[6]	5,245
1946-47	[6]	4,881	[5]	4,881	—	[6]	4,881
Flaxseed—							
1942-43	1,027	14,992	1	16,020	5,202[3]	3,740	7,078
1943-44	3,740	17,911	—	21,651	10,050[3]	3,649	7,952
1944-45	3,649	9,668	1	13,318	4,327[3]	2,932	6,059
1945-46	2,932	7,593	2	10,527	378	1,649	8,500
1946-47	1,649	6,403	1	8,053	61[3]	777	7,215

For footnotes see end of table.

DISPOSITION OF THE TOTAL CANADIAN SUPPLY OF PRINCIPAL FIELD CROPS, CROP YEARS ENDING JULY 31, 1943-47

Crop and Crop Year	*Stocks at Beginning of Period*	*Production*	*Imports*	*Total Supply*	*Exports*	*Stocks at End of Period*	*Domestic Disappearance*[1]
	'000 *bu.*	'000 *bu.*	'000 *bu.*	'000 *bu.*	'000 *bu.*	'000 *bu.*	'000 *bu.*
Shelled corn—							
1942-43	6,887	14,372	4,318	25,577	28	1,084	24,465
1943-44	1,084	7,775	4,721	13,580	47	1,029	12,504
1944-45	1,029	11,700	2,290	15,019	186	520	14,313
1945-46	520	10,365	1,671	12,556	147	619	11,790
1946-47	619	10,661	8,561	19,841	189	1,027	18,625
	'000 *cwt.*	'000 *cwt.*	'000 *cwt.*	'000 *cwt.*	'000 *cwt.*	'000 *cwt.*	'000 *cwt.*
Potatoes—							
1942-43	[6]	42,882	639	43,521	1,137	[6]	42,384
1943-44	[6]	43,541	237	43,778	1,521	[6]	42,257
1944-45	[6]	49,409	436	49,845	4,221	[6]	45,624
1945-46	[6]	35,986	4,812	40,798	1,986	[6]	38,812
1946-47	[6]	47,963	401	48,364	6,358	[6]	42,006
Turnips, etc.—							
1942-43	[6]	32,866	—	32,866	3,352	[6]	29,514
1943-44	[6]	35,690	—	35,690	3,775	[6]	31,915
1944-45	[6]	31,852	—	31,852	1,675	[6]	30,177
1945-46	[6]	25,493	—	25,493	1,597	[6]	23,896
1946-47	[6]	26,997	—	26,997	1,670	[6]	25,327
	'000 *tons*	'000 *tons*	'000 *tons*	'000 *tons*	'000 *tons*	'000 *tons*	'000 *tons*
Hay—[7]							
1942-43	[6]	21,460	—	21,460	41	[6]	21,419
1943-44	[6]	22,388	—	22,388	382	[6]	22,006
1944-45	[6]	20,097	—	20,097	138	[6]	19,959
1945-46	[6]	22,485	—	22,485	242	[6]	22,243
1946-47	[6]	18,721	—	18,721	165	[6]	18,556
Sugar beets—							
1942-43	[6]	721	—	721	—	[6]	721
1943-44	[6]	472	—	472	—	[6]	472
1944-45	[6]	564	—	564	1	[6]	563
1945-46	[6]	619	—	619	—	[6]	619
1946-47	[6]	734	—	734	—	[6]	734
	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*	'000 *lb.*
Leaf tobacco—[8]							
1942-43	112,227	77,392	1,351[9]	190,970	13,627[9]	111,418	65,925
1943-44	111,418	59,848	1,641[9]	172,907	14,914[9]	92,712	65,281
1944-45	92,712	91,172	1,844[9]	185,728	17,188[9]	91,866	76,674
1945-46	91,866	79,781	1,942[9]	173,589	11,283[9]	91,815	70,491
1946-47	91,815	122,218	2,252[9]	216,285	25,045[9]	116,014	75,226

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[1] Where data on stocks are not available, it is assumed that there was no change between the beginning and end of the period, and, therefore, the resulting domestic disappearance figure may be considered subject to error to the extent that actual changes in carryover stocks took place. [2] Wheat flour included in stocks, exports and imports. [3] Export clearances and imports into the United States. [4] Oatmeal and rolled oats included in stocks, exports and imports. [5] Imports of barley, rye and buckwheat totalled 48,000 bushels, but breakdown is not available and no account was taken of them in these calculations. [6] Information not available. [7] Hay and clover, alfalfa and grain hay. [8] Data in standard pounds for crop years ending September 30. [9] Includes manufactured tobacco converted to unstemmed leaf.

EXPORTS OF SPECIFIED AGRICULTURAL PRODUCTS AS PERCENTAGES OF PRODUCTION, 1935-43

Item	1935	1936	1937	1938	1939	1940	1941	1942	1943
	per cent.	*per cent.*	*per cent.*	*per cent.*	*per cent.*	*per cent.*	*per cent.*	*per cent.*	*per cent.*
Wheat[1]	86·73	96·04	52·80	44·69	36·88	42·64	71·04	37·90	122·27
Oats[1]	4·00	3·20	3·10	3·50	5·80	3·60	3·10	9·20	15·35
Barley[1]	9·10	24·18	18·81	14·59	10·25	2·61	1·85	12·99	15·65
Rye[1]	25·20	92·78	9·84	7·27	18·47	14·62	61·12	7·04	127·92
Flaxseed[1]	1·65	11·05	2·19	3·88	3·70	5·94	18·27	41·04	74·35
Corn[1]	1·05	6·86	0·11	0·05	0·09	0·20	0·14	0·38	0·61
Peas[1]	2·11	0·90	0·40	0·30	2·40	5·40	5·70	9·80	6·41
Beans[1]	15·70	10·20	23·70	47·80	54·70	29·30	8·50	31·00	10·42
Buckwheat[1]	4·00	4·87	0·07	0·06	0·10	0·21	0·40	1·04	—
Potatoes[1]	2·42	1·43	1·34	1·26	1·88	5·71	5·44	4·42	5·83
Turnips[1]	3·38	3·53	3·28	3·03	4·02	5·99	9·41	10·26	10·53
Hay and Clover[1]	0·30	1·93	0·41	0·64	0·75	0·34	0·07	0·26	2·22
Cattle	10·08	17·99	18·39	9·42	13·70	10·92	11·29	11·26	3·75
Calves	1·85	4·11	6·42	3·38	5·53	4·61	3·50	3·29	0·16
Hogs	19·10	22·38	31·53	26·11	22·00	30·57	38·06	34·84	31·05
Sheep and Lambs	0·76	0·57	0·61	0·52	0·56	0·62	0·81	1·91	1·33
Milk	6·08	7·36	7·87	7·00	9·08	8·45	7·63	10·21	10·19
Eggs	0·55	0·51	0·69	0·81	0·54	4·53	6·49	10·06	12·76
Poultry	1·27	2·03	4·76	1·45	1·38	1·27	1·83	1·94	0·29
Wool	51·08	57·88	30·58	26·98	30·43	16·83	18·52	2·18	12·21
Apples[2]	50·90	61·90	34·20	48·90	57·50	14·70	43·10	15·90	18·56
Apricots[2]	—	—	—	—	—	—	—	—	—
Pears[2]	37·76	36·68	26·28	24·75	37·33	5·47	3·12	3·63	1·75
Plums and Prunes[2]	—	—	—	—	—	—	—	—	—
Peaches[2]	—	—	—	3·79	2·80	0·76	1·40	1·65	1·27
Cherries[2]	—	—	—	—	—	—	—	—	—
Strawberries[2]	0·46	6·79	3·12	4·73	6·66	3·79	18·53	6·93	0·77
Raspberries[2]	—	—	—	—	—	—	—	—	—
Grapes[2]	—	—	—	—	—	—	—	—	—
Loganberries[2]	—	—	—	—	—	—	—	—	—
Other Fruits and Vegetables[2]	2·10	2·00	2·70	3·10	3·70	0·90	1·70	1·70	1·44
Honey	7·30	8·55	11·46	10·23	15·66	43·81	14·27	6·90	0·04
Maple products	13·24	28·54	21·63	23·10	38·16	21·55	33·52	29·63	25·01
Tobacco	21·92	25·98	28·21	39·01	14·20	6·23	20·27	17·66	25·07

[1] Crop year ending July 31 of following year.

[2] Crop year ending March 31 of following year.

CANADA'S COMMERCIAL FISHERIES

By H. F. S. PAISLEY

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CANADA'S commercial fisheries fall into three main divisions—the sea fisheries of the Atlantic coast, the sea fisheries of the Pacific coast, and the freshwater fisheries of the inland regions. Excellent sport fishing is likewise found in a great many parts of the country.

The commercial sea-fishing grounds include not only those in the territorial waters along the coasts but also rich deep-sea grounds which, though lying outside Canadian sovereignty and therefore open to the fishermen of the world, are much nearer, as a whole, to Canadian ports than to the harbours of any other country. Inland is more than half the freshwater of the globe. Collectively, Canada's fisheries resources are thus among the most extensive in the world.

The production from these resources is also widely diversified. Nearly 60 different species of food fish and about 15 different kinds of edible shellfish are taken by the commercial fishermen of the country. In addition, the catch includes some kinds of fish which in Canada, at least, are not used for purposes of human food but serve as the raw material for the manufacture of fish meal and oil and other by-products. One or two species of mammals are also landed, chief among them whales of the Pacific, which are used in making meal, oil, and fertiliser. Most of the whales taken have usually been Sperms. (For several years past whaling was discontinued in Canada but it has now been resumed.)

Total annual catch of fish and shellfish normally runs nowadays to well over 1,000,000,000 pounds. In the two years, 1945 and 1946, for example, the average annual catch was very nearly 1,325,000,000 pounds. In the same period the value of the catch, as put upon the market, averaged $117,500,000, roundly stated. The landed value, or, in other words, what the landings were worth to the fishermen as brought ashore, averaged about $66,500,000.

Market Forms.—So far as marketing is concerned, some of the fish are shipped " in the round," or as they come from the water. So, too, many of the shellfish, though not all of them by a good deal, are marketed in their natural condition. However, most of the catch, considering catch as a whole, undergoes some form of preparation or processing. The principal forms of treatment, listed in alphabetical order, are canning, drying, dry-salting, filleting, freezing, green-salting, manufacture of meal and oil, pickling, smoking and preparation of boneless salt fish.

Virtually all species of fish in Canada's catch are marketed both in the fresh and frozen forms. A large part of the catch of many species is filleted, though not the catch of some of the smaller species such as smelts. Filletts are sold fresh and frozen and there is also considerable trade in smoked filletts, while some are pickled. The largest business in fillets is in fillets of Atlantic Coast cod and other groundfish. These Atlantic groundfish are the only species which are prepared as dried salt fish. Dry-salting, on the other hand, is a method of processing applied only on the Pacific coast where herring and one of two species of salmon are treated in this way. Dry-salted fish, by the way, is not to be confused with dried salt fish. The latter is salted and then dried by sun-drying in the open air or by means of indoor artificial driers. Dry-salted fish, however, does not undergo any such drying treatment though it is drained of pickle before shipment and in that sense is " dry." Unlike dry-salted and dried salt fish, green-salted fish is not a finished product, ready for delivery to the consumer. It is a partially-processed product which, by further treatment, is turned into dried salt fish or boneless salt fish. Considerable quantities of it are exported to some Atlantic areas of the United States. Boneless salt fish is just what its name suggests—salt fish from which the bones have been removed.

Canning, of course, requires no explanation here, and this article is not concerned with giving technical details of processing operations. The most important single branch of the Canadian fish canning industry is Pacific Coast salmon canning (which in 1946, for example, had an output worth more than $17,500,000) but numerous different kinds of fish and shellfish in addition to salmon are put up in the canned form. Among the more important examples are herrings, lobsters, mackerel, and sardines, and Atlantic groundfish which, for the most part, are marketed under the trade names of chicken haddie and flaked fish rather than by the names of individual species. Canadian regulations relating to canned fish and shellfish define both chicken haddie and flaked fish as canned haddock or cod or hake or cusk or any combination of them, which has not been ground.

Employment.—Working force engaged in making the Canadian catch and in preparing it in the various market forms varies in numbers from time to time. Figures for 1946, however, are fairly indicative of the situation existing in recent years. In 1946 the total number of people employed in the fishing industry was slightly more than 92,800. Of these, more than 73,000 were at work in the primary operations; that is, in taking and landing the catch. The remaining 19,000 or so worked in the canneries, fish curing plants, and the other shore establishments.

The fleet of fishing vessels numbers about 1,900, all of them in the sea fisheries and all save a few of them equipped with gasoline or diesel power, but, in addition, there are some 20,000 gasoline fishing boats of varying sizes, several hundred diesel boats, five or six hundred fish-carrying boats and tugs, plus some thousands of sailboats. All told, these different classes of craft in the primary operations of the industry run to about 39,000, with a value of something like $29 million. Most of them are employed in the sea fisheries but there are several thousand boats in the inland fisheries, about 2,000 of them power-equipped. Gear of various kinds used in making the catch of fish, the nets, lines, traps, etc., represents an investment of about $18 million. (Figures given here are not to be taken as exact; approximate figures which give a general idea of the facts as they have recently existed are probably best suited for the present purpose. Exact statistics would only be accurate as regards the specific period which they cover since numbers of craft, units of fishing gear, and their value change somewhat from year to year).

Where the Fish Are.—Some of the waters where Canadian boats and vessels set their gear were fished before the days of Canada's first settlement. There is reason to believe that before the time of Christopher Columbus and John Cabot there were European vessels fishing off the Atlantic shores of this country. Cabot himself called it " Bacalaos," applying to the country the Basque name for cod, since he found the fish present in abundance when he sighted the land in 1497, and found, too, that Basque boats from Spain and France were fishing the waters. When Jacques Cartier, the explorer, sailed up the mighty St. Lawrence River in 1534 he found that fishermen from the Old World had been there before him. French fishermen established a base at Tadoussac in what is now the Province of Quebec in 1599.

Ever since those days of long ago the banks and inshore waters of the Atlantic coast have been yielding their great catches to fishermen of Canada. (The banks have been fished continuously, too, by vessels from Europe, as well as by those of the United States and Newfoundland). Gradually, with the spread of settlement, the fishing industry extended to all parts of the country. Briefly, the grounds fished today are as follows. On the Atlantic side of the country the coast line measures more than 5,000 miles, exclusive of lesser indentations, and fish are to be caught almost everywhere along its length; the Bay of Fundy, the Gulf of St. Lawrence, and other Altantic waters comprise some 200,000 square miles; off the coast, lying in the high seas but readily reached from Canada, is a great series of banks, many thousand square miles in area, prolific for generations, and still prolific, of cod, haddock, and other groundfish. On the Pacific coast the Canadian shore line measures more than 7,000 square miles—again exclusive of the lesser identations—and in its waters are an abundance of a score and more of commercial fish and shellfish while farther from land are other productive grounds, notably great halibut grounds. Added to these Atlantic and Pacific fishing grounds are productive inland waters which, as already noted, contain more than half the freshwater of the globe. Some of the commercial freshwater fishing is done in rivers but the great bulk of the production comes from lakes. There are many of these lakes, in many different parts of the country, but the larger waters fished are the Great Lakes, or, rather, the Canadian portion of the Great Lakes, and such lakes in the Prairie Provinces (the provinces of Manitoba, Saskatchewan and Alberta) as Manitoba, Winnipeg, Winnipegosia, Athabaska, Reindeer, and Lesser Slave. The Canadian area of the Great Lakes, alone, covers about 34 thousand square miles. Another big water brought into production in the past two or three years is Great Slave Lake in the Northwest Territories.

Administration of Fisheries.—There is some division of jurisdiction as regards the fisheries. The Parliament of Canada makes laws and regulations in respect of all fisheries. The provinces, on the other hand, have property rights, constitutionally, in non-tidal fisheries and administer them as property. However, by agreement with the Government of Canada, some of the provinces administer, within their respective boundaries, the laws enacted in respect of fisheries by the Parliament of Canada and the regulations enacted under one statute or another by the Government of Canada. Broadly the situation is that the federal authorities (the Department of Fisheries) administer all the sea fisheries, except, by federal-provincial agreement, those of Quebec, and also the freshwater fisheries of the Province of Nova Scotia, the Northwest Territories, and the Yukon Territory. In other cases the fisheries laws and regulations are provincially administered.

The Department of Fisheries has its headquarters at Ottawa and is under the direction of a Minister, as the political head, and a Deputy Minister as the chief executive officer. Working under the Deputy are directors of various departmental branches such as Field Services, Fish Culture, Development, Marketing, Information, and so on. As a matter of fact, however, most of the Department's working force is stationed in the field, principally on the two coasts. On each coast there is a divisional office, responsible to Ottawa, and there is a similar office in the Prairie Provinces, though there the administration of fisheries is mainly in provincial hands. Under the divisional office on each coast there are also some regional offices, and, in turn, a number of unit offices, and working under the appropriate offices are fisheries officers or inspectors in the various fishing districts. Protective and patrol vessels or boats are also maintained in service. Members of the departmental staff, both at Ottawa and in the field, are permanent employees, appointed through the federal Civil Service Commission and on duty throughout the year. Among the more important functions of the inspectors are the enforcement of laws and regulations (a duty which, among other things, contributes to effective conservation of fisheries resources), the inspection of certain fish products, and giving assistance to fishermen and others in the fishing industry by means of instruction as to the most efficient methods of handling and processing fish and shellfish. All inspectors must qualify for their posts by successful completion of prescribed courses given under departmental arrangements.

Inspection of Products.—Two Canadian laws, and regulations made under them, relate to the inspection of fisheries products. One is the Fish Inspection Act, which has to do with various kinds of pickled fish, some smoked fish, boneless dried fish, and several other products. Plants putting up these products are also subject to inspection for cleanliness, etc. Inspection of canneries and their outputs is performed by authority of certain sections of the Meat and Canned Foods Act. The inspection of products covered by the Fish Inspection Act is done, for the most part, by fisheries inspectors specially trained for the work but, in the case of canned products, it is handled by the staffs of fish inspection laboratories operated by the Department on either coast. Members of these staffs are people of scientific training. Not only are there the two permanent laboratories but also one or two mobile laboratories, which can be moved to appropriate fisheries districts from time to time. Product inspection is compulsory in some cases, e.g., Pacific canned salmon; in other cases, buyers, if they wish, may make it a condition of purchase that the goods meet the standards laid down under the law, and the necessary inspection service is then available from the Department.

Export Business.—In recent years Canada has been widening the application of its quality-control provisos relating to fish, and extending its governmental inspection services. Among other good reasons for this policy is the fact that 75 per cent, roughly, of the country's annual fisheries production, expressed in dollars, goes into export channels. (In 1947, for instance, production totalled about $117 million and fisheries exports amounted, in round figures, to $83 million.) With a big catch and comparatively small domestic population, Canada always has a good deal more fish available—using " fish " as including shellfish—than is required by the internal market. Prior to World War II, products of the Canadian fisheries were shipped to all continents. The United States was the biggest single customer, and still is, but a score and more of other countries were also buyers. Nowadays, of course (1948), world trade is upset, but Canada's fishing industry is in a position to supply many kinds of fisheries products to importers abroad, and in large volume. In many parts of the world there are Canadian Government trade commissioners, or other official trade representatives, who can advise importers as to sources of fish supply in Canada. Importers who are unable to consult the trade commissioners can obtain information by making contact with Ottawa.

Fisheries Research.—Quality standards for fisheries products, and methods of product inspection, are based largely on work done by the Fisheries Research Board of Canada. The Board, created by federal legislation, operates under the control of the Minister of Fisheries and is, in effect, the scientific and technological service of his Department. It is made up of representatives of the fishing industry, representatives of the Department, and scientists from a number of Canadian universities which do work in such subjects as biology, biochemistry, etc. Six permanent research centres, or " stations," are operated by the Board in different parts of the country, and one or two sub-stations. All carry on work throughout the year and are concerned entirely with fisheries matters. They are staffed by highly-qualified scientists and technicians and are fully equipped.

Two of the centres are known as fisheries biological stations, and the title indicates their main field of work. A third station is also chiefly biological in its scope.

The others, fisheries experimental stations, carry on study and experiment in connection with the handling and processing of fish and shellfish. Research in connection with Pacific salmon and the lobsters of the Atlantic coast are examples, two among many, of the work done by the biological centres. Development of an artificial fish-drier particularly suited to Canadian conditions, an improved form of " tunnel fish-smoker," and a more efficient type of railway refrigerator car for the movement of frozen fish are among the examples of the work done by the experimental stations. Biological studies by the Board's scientists serve the Department, in many instances, as guidance in determining the steps necessary to protect particular species of fish, or fish in particular areas. The investigations and experiments carried on at the experimental stations serve the Department in helping it to shape quality-control programme.

Information brought out through the Board's work is put freely at the disposal of the fishing industry. Some studies and tests as to new and improved methods of fishing are carried out by the biological workers. Technical advice is available to fish handlers and processors from the experimental stations, not only advice to handlers and processors in general but also advice on specific problems encountered, for example, by an individual canner in operating his own plant. Some courses of instruction are made available by one station or another to people in the fishing industry. Stations participate also in giving the special training courses which persons seeking appointment to the Department's staff of fisheries inspectors must take, and the " refresher " courses which are given inspectors from time to time. Departmental inspectors expert in particular methods of fish processing also give courses of instruction to fishermen in appropriate districts.

PACIFIC FISHERIES

Salmon stand first in importance among Canada's Pacific Coast fish and are the chief factor in placing the Pacific province, British Columbia, in top position among the nine provinces, so far as the dollars-and-cents side of fisheries production is concerned. Other major species taken by British Columbia fishermen include, in alphabetical order, grayfish or dogfish, halibut, herring and lingcod. Among others of substantial importance are clams, crabs, oysters, sharks (principally Mud and Soupfin sharks), and soles, and the biggest creatures, physically, taken in the Dominion's fisheries—the whales. All of the species named, except grayfish, sharks and whales, are used for food purposes, though some of them also enter into the manufacture of fish meal and oil. The grayfish are turned into meal and industrial oil, and vitamin oil in large and valuable volume is produced from their livers. Shark livers are sources of vitamin oil. Meal, industrial oil, and fertiliser are produced from the whale landings, as well as from several kinds of fish other than grayfish (e.g., herring). A number of minor species, in addition to those already named, also come into the British Columbia catch. In some years pilchards are taken in great abundance.

British Columbia accounts annually for 45 or 50 per cent of the Dominion's total fisheries production, reckoned in marketing value. The importance of salmon in these western fisheries is emphasised by the fact that in 1946, for instance, the value of the total provincial catch was $43·8 million and the salmon fishery accounted for $24·3 million.

Most of the Pacific salmon catch is used for canning. Although salmon are caught also on the Atlantic coast, virtually all of Canada's output of canned salmon is put up in British Columbia. The largest pack on record, 1941, was 2,248,870 cases (48-pound cases) but cannery output fluctuates more or less from year to year. A good many of the fish are also sent to the fresh and frozen fish markets, some are mild cured, a few smoked or pickled. Some drysalting of salmon is also carried on. Waste from salmon processing operations is used to some extent in the manufacture of meal and oil.

Five varieties of salmon are caught by British Columbia fishermen: The Sockeye, which lives for four or, sometimes five or six years and weighs, on the average at maturity, about five pounds; the Spring, which lives for six or seven years and reaches an average weight of some twenty pounds; the Coho, with a life span of three years and average weight six pounds; the Pink, which lives only two years and comes to weigh about four pounds; and the Chum, whose life is three or four years and average weight eight pounds. Like the Atlantic salmon, though of a different genus, Pacific salmon go up rivers and streams from the sea to spawn but, unlike the Atlantic fish, which go back to sea after spawning and then in due season return to fresh water to reproduce again, they spawn once only and then die immediately at the spawning grounds. (Scientifically, the Atlantic salmon belongs to the genus *Salmo* and the five species of Pacific salmon to the genus *Oncorhynchus*.) All Pacific varieties are similar in food value but Sockeye command the highest price on the market, largely because their rich, red colour and the firmness of their tissues give them an especially attractive appearance on the table.

How Salmon are Caught

Some salmon fishing is in progress in British Columbia throughout most of the year, but it is in the summer and autumn months that operations are at their height.

Drift gill-nets are more generally used than any other device. They catch the fish by the gills as the salmon swim along on their migration route from the sea to the spawning areas. A gill-net is placed in operation by throwing it over the stern as the fishing boat is propelled slowly forward. The net is so coiled in the boat that when paid out the bottom is carried down by the lead or sinker line and the cork line or float line holds the top on the surface, thus creating a vertical obstruction in the water, and the forward movement of the boat leaves the net lying in a straight line. The catch is collected when the net is drawn back into the boat and carefully coiled to throw out again. Salmon gill-nets vary in length up to 1,200 feet.

The purse seine is a deep net, from 900 feet to 1,200 in length, with cork floats at the top and heavy leads at the bottom to keep it suspended vertically in the water when in use and with ropes and iron rings also at the bottom so that it may be drawn together under water and closed in the form of a purse. The seine is carried at the stern of a seining vessel, power-equipped, and when the fish are seen jumping from the water in numbers one end is thrown overboard and is attached to a stationary rowboat. Then, as the vessel makes a circle around the fish and back to the rowboat, the crew pay out the net, which runs out over a roller. When the seine boat reaches the starting point again two ends of the seine are brought together and a pull on a rope which runs down through the iron rings at the bottom of the net " purses " or closes the seine, preventing the escape of the fish. The net is then gradually drawn back on the boat until the fish are in a confined space in the small portion of the "purse" net remaining in the water. They are then easily dipped out into the vessel's hold.

Trolling is simply fishing by means of hooks and lines from boats propelled slowly forward. Several lines may be used, perhaps as many as six. Baited plain hooks are sometimes used but spoon hooks, either baited or unbaited, are more frequent. The lines may run as long as 20 yards or more and heavy lead sinkers are used to adjust the depth at which fishing is carried on.

So far as salmon traps are concerned, only the stationary type is permitted on Canada's part of the continent's Pacific coast though floating traps are also used in some other countries. The British Columbia trap is a large device, built of long, heavy poles or piling and wire or net webbing. Since migrating salmon, on encountering an obstruction, will try to swim around it, rather than turn back from their course, the trap has a "leader" of piling and netting, which runs out from shore in comparatively shallow water for perhaps as much as half a mile, and at the outer end are several net enclosures. As the salmon strike the "leader" they swim along it seaward and many of them are unwittingly diverted into the enclosures (some of them known as "hearts," such as spillers another as the "pot") by small entrances along the way. In emptying a trap of its catch, which is done once a day or perhaps every other day, the salmon are dipped out by means of a "brailer," a large scoop made of heavy netting, which is operated by power from a fish tender or tugboat brought alongside.

Drag seines, or beach seines, are fished from the shore at the mouth of streams, but their use is restricted to Indian fishermen. One end of the net, which is not more than 600 feet long, is staked to the shore, and from a boat the remainder is circled around the "school" of fish until the second end has been brought back to the starting point. Lead and float lines keep the net suspended vertically and as the lead line rests on the bottom the fish cannot escape the enclosure formed when the seine is pulled shoreward.

Other Pacific Fisheries

For years past great quantities of herring have been taken annually in British Columbia waters but World War II gave the fishery new importance when the United Kingdom looked to Canada for the largest possible shipments of canned fresh herring to help in meeting British food needs. In pre-war times the bulk of the Pacific herring catch was used in preparing drysalted fish for export to the Orient and in making fish meal and oil. (Drysalting consists, briefly, of placing the herring in bins or other suitable receptacles and salting them heavily.) Some of the fish were marketed fresh, some canned, a few smoked or pickled but the quantities used in these ways were small as compared with the quantities used by the meal and oil plants and the salteries. Following the outbreak of war the canning operations were expanded enormously as Britain's food needs became more urgent. The remarkable expansion which took place is sufficiently indicated by the fact that in 1938, the last full year of peace, the British Columbia pack of canned fresh herrings was less than 23,500 cases while in some of the war years it was well over 1,500,000 cases of 48 pounds each. (Incidentally, all British Columbia canned herring, like the canned salmon, is subject to compulsory inspection. The inspection service is carried on by the Pacific Canned Fish Inspection Laboratory, Vancouver, which is operated by the federal Department of Fisheries.) Nearly all of the wartime pack of the Pacific herring canneries was delivered to the United Kingdom's Food Ministry, which was also supplied with substantial quantities of canned herring from the Atlantic provinces.

Postwar canning of herring has been continuing to be large-scale, though production is below the peak figures of the war years. A good deal of the catch also goes into the production of oil and meal. Wartime restriction on drysalting has been removed and operations of this kind are again on a substantial scale.

Practically all of Canada's landings of Pacific herring (*Clupea pallasii*, while the Atlantic species is *Clupea harengus*) are made by means of purse seines, which are similar to salmon purse seines but with smaller meshes. Comparatively small quantities of fish are taken by gill-nets.

One of Canada's pieces of good fortune is that Providence placed the world's greatest halibut fishing grounds close to the country's Pacific coast. Scientifically, by the way, the Pacific halibut is known as *Hippoglossus stenolepis* and the species in Atlantic waters is *Hippoglossus hippoglossus*; there is very little difference between the two species—some authorities say they are one and the same fish—but it happens that, off Canada, the halibut fishery is much bigger West than East.

Some of the principal halibut grounds on the western side of Canada are off the west coast of Vancouver Island, off the Queen Charlotte Islands, in Hecate Strait and in Dixon Entrance. Others farther away but accessible to British Columbia vessels, lie off Alaska. All told, these various areas yield 70 per cent or more of the world's annual halibut catch. True, British Columbia fishermen do not have this rich fishery all to themselves. United States vessels share in it, but the Canadians make landings which in some years are more than 17 million pounds. Until wartime circumstances greatly increased the importance of herring, for the time being at least, halibut were second only to salmon in the Dominion's Pacific fisheries, judged according to annual marketed value of production.

Pacific halibut fishing is done with "long lines" set from power vessels, each line carrying a large number of hooks. The vessels themselves range from, say, 40 feet to 75 feet in length and may remain on the grounds for as long as two weeks at a time, keeping the catch in good condition by icing. Virtually all of the fish are marketed either fresh or frozen. The bulk of the catch is sold in Canada and the United States, though the frozen fish can be shipped much farther afield; substantial shipments have been made to Great Britian and the fish delivered in thoroughly satisfactory condition. Halibut livers, of course, took on value with the discovery, some years ago, that the oil extracted from them is rich in vitamin content (A and D). Vitamin oil is also produced in Canada from halibut viscera.

The Pacific halibut fishery is regulated by a commission (the International Fisheries Commission) made up of representatives of Canada and the United States, which operates under a treaty between the two countries. Restoration of the fishery, which, before the establishment of the commission, was becoming depleted as a result of uncontrolled exploitation, is the world's outstanding example of successful international action in fisheries conservation. Another Canada-United States commission, the Internation Pacific Salmon Fisheries Commission, also operates for the preservation and improvement of the Sockeye salmon fishery of the Fraser River system.

While the Fraser is in British Columbia, the Sockeye spawned in its watershed frequent both Canadian and United States waters, hence the international co-operation which consists of scientific research as well as regulation. Under the treaty creating the commission, the catch of Fraser Sockeye is apportioned equally between the fishermen of the two countries.

Pilchards, which resemble herring but, in general, are larger and of greater oiliness, are sometimes taken in very large quantities off the west coast of Vancouver Island and also in some other British Columbia areas. However, in recent years, for some reason which science has not yet uncovered, they have not been found in British Columbia waters in their former abundance.

Pilchards are taken by purse seines. Most of the landings serve as raw material for " reduction plants," the term applied to plants making fish meal and oil. In meal and oil manufacture the fish are treated in steam cookers, the oil is extracted by pressure and settling and skimming and the solid residue is dried and ground into meal, though this account of the process is only a sketchy, non-technical description. Some pilchards are marketed in the canned form.

Not so very many years ago Pacific grayfish or dogfish *Squalus suckleyi* were regarded as only a nuisance because of the damage they did to some kinds of fishing gear and their appetite for commercial fish. Then they took on some value when it was found that they could be satisfactorily used as raw material for the plants producing fish meal and industrial fish oil. Later on, only a few years ago, scientific research revealed that these fish carry a good deal of vitamin A tucked away in the liver. In consequence, the once despised creatures became " big money " fish in wartime British Columbia. The bodies are still used for making meal and industrial oil but the big return from the fishery comes from the extraction of vitamin oil from the livers. In 1946 much more vitamin oil was produced from grayfish livers than from any other single kind of raw material. Fishermen take part of their grayfish catch by hook and line, part by using sunken gill-nets, and part by means of small otter trawl nets which are pulled along the bottom by power boats or " draggers." Grayfish, in this case the species *Squalus acanthias*, are present also in Atlantic Coast waters, and some are taken every year, but the livers of the Atlantic fish lack the degree of vitamin potency present in the other species.

Clams, crabs, and oysters are British Columbia's most important shellfish, although shrimps and abalone are also marketed. All of Canada's commercial landings of shrimps are made on the Pacific Coast. The British Columbia landings of oysters ordinarily go to the fresh fish market and most of the crabs are also sold fresh, though some crab canning is done. On the other hand, most of the clams are canned.

Expansion of meal and oil production in Canada has come about mainly on the Pacific coast, although the Atlantic provinces (principally Nova Scotia and Quebec) are the source of nearly all of the output of medicinal cod liver oil—a very important vitamin oil—and also turn out several classes of by-products. On the Pacific coast, as already indicated, the herring, pilchard and whale fisheries supply most of the raw material used in manufacturing meal, with grayfish, some salmon and halibut waste, etc., also used. On the industrial oil side, the Pacific raw material consists chiefly of herring, whales, grayfish and pilchards. Pacific vitamin oils are made mainly from the livers of grayfish, sharks, halibut and lingcod although ratfish, black cod, red cod, gray cod, skate and salmon livers are utilised in lesser volume. In addition, vitamin oils are obtained also from the viscera of the halibut and lingcod and one or two other species.

THE INLAND FISHERIES

People in other countries who have some knowledge of Canada probably think of the three Prairie Provinces—as Manitoba, Saskatchewan, and Alberta in the mid-west are commonly known collectively—as great wheat-growing areas. The provinces are, in truth, one of the world's major sources of wheat supply. It is also an interesting fact, however, that, together, they are the main source of commercial freshwater fish in Canada, and freshwater or inland production, though much smaller than the output from the sea fisheries, is of considerable importance to the nation.

Catch from the lakes of the Province of Ontario usually exceeds the landings in any single one of the Prairie Provinces but it is well below the total for the three. In the Province of Quebec the freshwater fisheries are also of substantial importance. There is small-scale inland production in New Brunswick and in the Yukon Territory. One of the most interesting developments in recent years has been the initiation of successful commercial operations at Great Slave Lake, which lies in the far Northwest Territories some hundreds of miles north of Alberta, the nearest settled area of the country. Whitefish and lake trout from Great Slave, which, by the way, is North America's fifth largest lake, with an area of more than 11,000 square miles, are now marketed regularly in Canadian markets and, indeed, most of them in cities of the United States. Some of the catch is sent out by air but most of it is marketed by delivering it to railhead in Alberta by means of refrigerated barges and trucks. Development of the Great Slave operations, which produce an annual catch of several million pounds, has been the direct result of federal fisheries research which established the lake's capacity to sustain substantial annual exploitation. Elsewhere in the Northwest Territories the only fishing that has hitherto gone on has been done by settlers and Indians to meet their domestic needs. As settlement extends, however, other waters will come into production in the north, and there are many of them.

Between 25 and 30 food species are landed commercially from inland waters. Among the species ordinarily taken in largest quantity are whitefish, pickerel or doré, tullibee, ciscoes or freshwater herring, lake trout, saugers, perch, and blue pickerel. It is true, as already indicated, that the inland commercial catch is much smaller than the landings from the country's vast sea fisheries resources but, nevertheless, it amounts to something like 100,000,000 pounds annually. Its aggregate market value fluctuates more or less from year to year but recently has been running to $14 or $15 million. Such an addition to the over-all value of the production from Canadian natural resources is of considerable importance but the freshwater fisheries also make useful contribution in another sphere—export trade. Most of the freshwater landings are sold in the United States. Nearly all of the catch is shipped in the fresh and frozen forms, though a little is smoked.

Most of the fishing is done with gill-nets, though various other kinds of gear are used, such as hoop-nets, pound-nets, lines. Fishing in quite numerous areas is not only carried on during the open-water season but also in the winter when gear is set through the ice. As a matter of fact, a good deal of the Prairie Province commercial catch is taken in winter-time.

THE ATLANTIC FISHERIES

As used here, the term " Atlantic Fisheries " applies to the sea fisheries of the three Maritime Provinces (as Nova Scotia, New Brunswick, and Prince Edward Island are known collectively) and the Province of Quebec. These four Provinces also have commercial freshwater fishing resources but, for convenience sake, all the inland or freshwater fisheries are dealt with in a separate section; (page 307).

More than 30 different kinds of food fish and shellfish are taken in the Atlantic Fisheries, as well as several species (e.g., dogfish) which in Canada are not used for food purposes. Named in alphabetical order, the chief varieties of fish are alewives or gaspereaux, cod, haddock, hake, halibut, herring, mackerel, pollock, sardines (sardine herring), salmon, smelts, and swordfish, and the principal shellfish are clams, lobsters, oysters, and scallops. Canada's lobster fishery is much the largest in the world.

Lobsters are taken in the waters of all four of the Atlantic Provinces but the largest production is in Nova Scotia. Oysters are taken in different areas in all three of the Maritime Provinces, and scallops chiefly in Nova Scotia, though some are landed in New Brunswick, and smaller quantities from Prince Edward Island and Quebec waters. The largest production of clams is in New Brunswick but they are also landed in all the other Atlantic Provinces. Both soft-shelled clams and hard-shelled clams or quahaugs are taken, though no quahaugs are landed in Quebec.

Lobsters are caught by means of baited lobster traps, devices made of laths and pieces of net fastened together which are sunk at suitable spots by the lobstermen and are lifted at more or less regular intervals so that the catch may be removed. Oysters are gathered by special rakes or tongs from " beds " found in various bays and river estuaries where there is a proper mixture of fresh water. Scallops come from somewhat deeper water of sea saltiness and are landed by drags or dredges drawn along by motor boats. Clams are dug at various places along the shore.

Cod, haddock, hake, herring, mackerel, and salmon are taken by the fishermen of all four Provinces, with Nova Scotia's catch the largest in most cases. Swordfish are caught in Nova Scotia waters only, pollock and alewives by Nova Scotia and New Brunswick fishermen, and halibut in all the Atlantic Coast waters save those of Prince Edward Island. Smelts are caught by the fishermen of each Atlantic Province but by far the great production is in New Brunswick, where three million pounds and more may be landed in a year. The smelt fishery is at its height in the winter months when the fish come into the rivers from the sea to spawn. At that time enormous catches are made in tidal rivers which the fish frequent. Holes are cut in the ice and the fish are mainly caught in bag nets.

Virtually all the sardines taken on the Atlantic coast are caught in south-western New Brunswick where the largest sardine canning factory in the British Commonwealth is among those operated. These fish, young herring, are caught by means of weirs and seines and the year's catch in New Brunswick has sometimes run to more than 85,000,000 pounds.

Methods of Fishing

The Atlantic Fisheries may be described as in two divisions—the shore, or coastal, fishery and the deep sea or " banks " fishery. Generally speaking, the shore fishery is carried on in the waters within 12 miles of land by small sail and motor boats but some larger boats, which may be classed as small vessels, operate 15 miles or so off shore, Hand lines and trawl lines are used in shore fishery as well as gill-nets, seines, traps, and weirs.

When fishing for such fish as cod, haddock, and halibut the boat fishermen and the fishermen in the small vessels use either hand lines or trawl lines. The hand line is a single line with one or more baited hooks and is weighted by a lead sinker. The line is thrown over the side of the boat or vessel, but several lines may be handled by one fisherman. A trawl line or " long " line has attached to it at intervals of about six feet a succession of single short lines, each with one hook. Sometimes several of the " long " lines are tied together so that a line of a mile or more in length is made. When the hooks have been baited and the trawl line placed in the water it is buoyed and anchored at both ends and left stationary for some time. Then it is pulled in and the fish are taken from the hooks. The bait used both in hand line fishing and with " long " lines is perhaps usually herring but clams are sometimes used while squid, a kind of cuttlefish, make an excellent bait when obtainable.

Gill-nets take their name, of course, from the fact that they catch and hold the fish by the gills. Made of strong twine a gill-net is " set " in the water in the form of a wall of netting which is sometimes fixed, sometimes allowed to drift with the tide. Sinkers at the bottom of the net and corks or floats at the top hold the wall of netting vertical in the water. As fish swim along and seek to find passage through the meshes of the obstructing net they are caught by the gills and held until the fishermen pull up the net and remove the catch. The meshes of gill-nets used in different fisheries are often of different sizes, of course, for the mesh which would catch one species of fish may be either too large or too small to hold another.

Seines are nets used to encircle and capture moving bodies or " schools " of fish. When a " school " is sighted by the seine fishermen the net is put out from the boat, one end carried around the fish until the two ends are brought together, and the bottom is drawn in so that the fish are completely enclosed. Then the seine is gradually pulled to the top of the water and the fish unloaded. This method of seining is used chiefly in the capture of such fish as mackerel and herring. Another form of seine is the drag-seine which is used in coves or similar areas where fish come close to shore.

Fish traps vary more or less in design but all are similar in general plan. Each consists of a wall or " leader " of net which tends to divert swimming fish toward a " pound " or trap of netting or other material; and once within the " pound " the fish rarely find the way out.

Weirs are devices made of small poles or posts and brushwood and nets run out from shore. A " leader," made by driving a connected series of posts into the bottom and fastening brushwood, netting, etc., along the sides, is built out into the water and at the outer end is a bag or trap, usually more or less circular in shape, which is made by another series of posts to which a net is fastened on the inside. As the fish swim along near the shore they are guided by the " leader " through a narrow opening into the trap and their escape through the opening again is prevented by projecting partitions.

On the " Banks "

The deep-sea fishery is often called the " banks " fishery because it is mainly carried on in waters which lie over those upland or hill portions of the ocean bed that are found between the outer edge of the shore fishery area and the deep waters of the Atlantic. The main " banks " range from the Grand Bank, southward of Newfoundland, to Georges Bank, off the southwestern coast of Nova Scotia. Twelve of them have a combined area of nearly 70,000 square miles. A number of smaller " banks " are also fished by Canadian fishermen.

Deep-sea fishing schooners are sturdy craft, equipped with both sails and engine power, though nowadays they use sail chiefly for auxiliary purposes. Capable of withstanding stormy weather, they range in size from about 70 tons to more than 125 tons and carry crews of from 14 to 25.

Fishing in deep-sea waters is also carried on to some extent by otter trawlers, power vessels which operate by dragging otter trawls, specially constructed strong bag-like nets along the sea bottom. Otter trawling is done by vessels of some 250 to 300 tons gross. Most of them now use diesel power, though some of the older craft may still use steam. Smaller vessels using similar gear are usually spoken of as draggers. The net used by trawlers is a large conical net or bag about 150 feet in length, which the vessel tows along the bottom when fishing is in progress. The mouth of this huge bag is kept open laterally by iron-shod " boards " or " doors," short wooden walls, one on each side, rigged in such a way that they operate like kites. As the trawl is towed along, the " doors " are pulled apart by the resistance of the water, thus opening the bag. The lower side of the mouth of the bag, which rests on the sea-bottom, is secured to a line reaching from " board " to " board;" the upper side is secured to a somewhat shorter line, and, as the bag moves along, the top of the mouth extends considerably in advance of the lower. At ordinary towing speed the kite-like action extends the net laterally to a width of over 100 feet, and the flow of water into the net tends to keep it open vertically. In the forward third of the bag the mesh of the net is largest; in the centre third, smaller; and in the third, smaller still. The end of the net is closed by a draw-string when in use. In operation, the trawler tows the trawl or bag at a speed of several miles an hour, usually for a fishing period of from one to two hours. Fishing goes on at night as well as by day. At the end of each fishing period the trawl is raised to the deck of the vessel by a winch, the draw-string in the end of the bag is loosed, and the fish are dumped on the deck, sorted, and packed in ice in boxes or " pens " on the deck.

The fish taken in the deep-sea fishery, whether by trawlers, draggers or schooners, are principally cod, haddock, hake, and pollock. The otter trawl craft operate mainly in the fresh fish trade. Some of the schooners also engage in " fresh fishing," as it is called; but the catches of others are the raw material for the production of dried salt fish.

In schooner fishing, as distinct from otter trawling, each vessel carries a number of small, flat-bottomed boats called dories, say six to ten, and when fishing is to begin they are put overboard, each manned by two fishermen. In setting the fishing line, or line trawl as it is often called, one man pays it out from the dory as the other rows, the hooks having been baited before the men left the schooner. One end of the line is fastened to a small anchor and buoy and when the " long " line, with its five or six hundred short lines, each with baited hook, has all been paid out the other end is also fastened to a buoy and anchor. After leaving the line in the water for half an hour or more the men haul it back into the dory, taking off the fish as the short lines come in. Then the dory goes back to the vessel, the fish are unloaded, the line is rebaited, and the dory resumes fishing.

After fishing for the day is all over the crew split, clean and wash the fish and store them in the vessel's hold, where each layer is heavily sprinkled with salt, if the catch is to be used in the dried fish trade. The fishing continues day after day until a full cargo or " trip " of fish has been obtained and then the schooner sails back to port, after having been on the fishing grounds for perhaps some weeks. Back at port, the fish are unloaded and are dried in the sun and air, a process which ordinarily requires about three weeks, or, in some cases, the drying may be done in artificial fish driers which requires much less time. Of course, when vessels are fishing for the fresh fish trade they remain on the grounds for only a day or two and then hasten back to harbour so that their catch reaches the fresh-fish markets in good condition.

Marketing the Fish

Much of the Atlantic catch is marketed in the fresh and frozen forms, mainly, of course, in Canada and the United States, although, with present-day freezing and transportation facilities, frozen fish can be delivered in prime condition at points far distant from point of shipment. (Prior to World War II, indeed, frozen fish from both Canadian coasts, mainly halibut and salmon, were shipped to Great Britain and one or two continental European countries, and large aggregate quantities of frozen cod and flatfish were supplied to Britain during the war.) Marketings of Canadian frozen fish have increased greatly in comparatively recent years, thanks, in part, to the development of the process known as " rapid freezing " or " fast freezing." Fish frozen by this method will keep fresh for lengthy periods, if properly handled, without losing any of their natural quality. In the Canadian trade fresh and frozen fish, alike, are marketed both " in the round," or, in other words, as whole fish, and in filleted and steak forms.

Large quantities of cod and other Atlantic groundfish are put up for market as dried salt fish. In prewar days there was large-scale business in this product with Mediterranean areas, among others, but trade conditions there are still upset (1948) and the principal sales of dried fish are now made to the West Indies, Porto Rico, Cuba, and the United States, etc. Caribbean countries have always been one of the traditional Canadian outlets for fish in this form.

A large part of the Atlantic catch is also used as the raw material for the canning, pickling, and smoking branches of the fishing industry. There are such products, for example, as pickled herring, mackerel, and alewives, which go largely to the Caribbean markets, and smoked fillets of cod, haddock, etc., finnan haddie or smoked haddock, smoked herring kippers and bloaters.

Cannery Products

The principal canned products packed in the Atlantic fisheries are lobsters and sardines. Virtually the entire world output of canned lobsters (true lobsters, as distinguished from such species as spiny lobster or crawfish) comes from these East Coast sections of Canada. At one time nearly all of the catch went into cans but of late years the increasing trend has been to ship lobsters alive, and as a general thing nowadays more than half of them are marketed in this way. The sales of " live lobsters " are made in Canada and the United States, with the larger quantity, of course, sold in some of the bigger cities of the latter country. In recent years lobster catch has ranged from, roughly, 30 million pounds a year to 38 million. The cannery pack fluctuates, too, of course, but usually runs now around the 65,000-case mark, the case, in this instance, meaning a container which, in its cans, holds 36 pounds of lobster meat in all.

Although sardines are caught on several parts of the Atlantic coast, their processing in the canned form is centralised in the Bay of Fundy area of one province—New Brunswick. Cannery pack ordinarily runs to $2,000,000-$2,500,000 a year. In normal times shipments go to many foreign markets. Actually, of course, the fish are not the same species as the sardines of the Mediterranean but young, small herring similar to those packed in competing areas of Northern Europe as sardines.

Atlantic processing plants also turn out substantial quantities of " chicken haddie " and " flake-fish," which are not names of particular fish species but the trade terms for canned cod, haddock, hake, or cusk or combinations of these fish. Some canned finnan haddie is also packed or, in other words, canned smoked cod, haddock, hake, cusk, or pollock either separately or in combination. Other Atlantic cannery products include clams, herring, and mackerel.

Atlantic By-Products

Vitamin cod liver oil, some other fish oils, fish livers for use in oil production, fish meal, fish glue, fish fertiliser, and herring scales are among the by-products of Atlantic Coast fishery operations. The vitamin oils, of course, are marketed for medicinal purposes, the industrial fish oils go to soapmakers, tanners, etc. Fish meal is increasingly used by farmers and poultrymen for feeding their stock. Herring scales are used in manufacturing an essence from which artificial pearls, pearl knife-handles, etc., are made. In various parts of the Atlantic Provinces, as well as elsewhere in Canada, " fur farms " or " ranches " make considerable use of fish as a food for foxes, mink, and other wild animals which they raise for their pelts.

ALPHABETICAL LIST OF FISH AND SHELLFISH TAKEN IN CANADA'S COMMERCIAL FISHERIES AND THE FORMS IN WHICH THE CATCHES ARE MARKETED

(Some quantities of all species of Canadian food *fish* are shipped to market as whole fresh fish but the greater part of the over-all catch is further prepared or processed by some of the following methods: Freezing, filleting, smoking, pickling, drying, canning, mild-curing, vinegar-curing, green-salting, dry-salting, production of boneless dried fish. There is some production of secondary commodities, such as fish paste and sandwich spreads. Waste from some of the processing operations, and the whole fish of certain food species and some non-food species, are used in the manufacture of fish meal and industrial and vitamin oils. Canadian food *shellfish* are marketed, principally, in the fresh form (or in the shell) and canned, though in some cases the fresh meat alone, not the whole shellfish, is shipped.)

In the Sea Fisheries

Alewives
Anchovies
Bass
Black cod
Capelin
Catfish (marine)
Cod
Cusk
Dogfish (or Grayfish)
Eels
Flounders
Haddock
Hake
Halibut
Herring
Lingcod
Mackerel
Octopus
Oulachon
Perch
Pilchards
Plaice (Canadian Plaice)
Pollock
Red cod
Rock cod
Rosefish
Salmon
Sardines
Shad
Sharks (Mud and Soupfin)
Silversides
Skate
Smelts
Soles
Squid
Sturgeon
Swordfish
Tomcod
Trout
Tuna
Whiting
Witch
Yellowtail

Marine Shellfish

Abalone
Clams (several species)
Crabs
Lobsters
Mussels
Oysters
Quahaugs
Scallops
Shrimps
Winkles

Mammals

Belugas or white whales, a few fur seals, fairly large numbers of hair seals, and some whales are also taken in the sea fisheries.

Marine Plants

Dulse
Irish moss
Kelp
Seaweed

Dulse is dried in the sun and eaten. Irish moss is dried and bleached for use in various food and other industries—for instance, as a stabiliser for certain chocolate drinks, the clarification of beer, etc. Kelp and seaweed are used for making meal.

In the Inland Fisheries

Alewives
Bass
Blue pickerel
Carp
Catfish (fresh-water)
Ciscoes (fresh-water herring)
Drum
Eels
Goldeyes
Grayling
Inconnu
Ling
Mullets
Ouananiche
Perch
Pike
Pike-perch (or Pickerel)
Salmon
Saugers
Shad
Smelts
Sturgeon
Suckers
Tomcod
Lake Trout
Tullibee
Whitefish

THE FORESTS OF CANADA AND THEIR UTILISATION

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B.A.

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AMONG the natural resources with which Canada is endowed, her forests are of particular importance. In extent they are surpassed only by those of the U.S.S.R. and of Brazil, and their exploitation provides one of the principal occupations of the country's population and a large portion of its export trade.

According to the latest estimates, Canada has 1,290,960 square miles of forested lands, or 37 per cent of the total land area. The forested area within the boundaries of the nine provinces totals 1,167,960 square miles, or 58 per cent of the provincial land area. About 480,000 square miles of the existing forests are classed as "unproductive," being made up of small trees which cannot be expected to reach merchantable size.

The productive forests, covering more than 813,000 square miles, are considered to be capable of producing continuous crops of timber suitable for domestic and industrial purposes. A considerable proportion of these forests is not yet accessible to commercial operations, but constitutes a valuable reserve for the future. About 435,000 square miles of productive forests are considered to be economically accessible at the present time. One-half of the productive forest area bears trees large enough for use as sawlogs, pulpwood or fuel wood.

The total stand of timber of merchantable size is estimated to be 311,201,000,000 cubic feet, of which 191,347,000,000 cubic feet is accessible. Expressed in commercial terms, the accessible timber is made up of

TABLE I

ESTIMATE OF TOTAL STAND OF TIMBER IN CANADA, BY TYPE AND SIZE, AND BY PROVINCES AND REGIONS

Province and Region	*Conifers*			*Broad-Leaved*			*Totals*		
	Saw Material	*Small Material*	*Total Equivalent Volume*[1]	*Saw Material*	*Small Material*	*Total Equivalent Volume*[1]	*Saw Material*	*Small Material*	*Total Equivalent Volume*[1]
	Million ft. b.m.	*'000 cords*	*Million cu. ft.*	*Million ft. b.m.*	*'000 cords*	*Million cu. ft.*	*Million ft. b.m.*	*'000 cords*	*Million cu. ft.*
Accessible									
Prince Edward Island ..	65	560	61	40	240	28	105	800	89
Nova Scotia	4,850	23,165	2,939	1,600	5,940	825	6,450	29,105	3,764
New Brunswick ..	6,000	50,000	5,450	3,000	30,000	3,150	9,000	80,000	8,600
Quebec	41,110	453,330	46,755	14,390	176,120	17,848	55,500	629,450	64,603
Ontario	42,560	273,790	31,784	11,390	286,140	26,600	53,950	559,930	58,384
TOTALS, EASTERN PROVINCES ..	94,585	800,845	86,989	30,420	498,440	48,451	125,005	1,299,285	135,440
Manitoba	855	9,645	991	1,620	19,110	1,948	2,475	28,755	2,939
Saskatchewan	1,850	8,920	1,128	2,100	51,060	4,760	3,950	59,980	5,888
Alberta	7,000	74,400	7,724	2,080	36,000	3,476	9,080	110,400	11,200
TOTALS, PRAIRIE PROVINCES ..	9,705	92,965	9,843	5,800	106,170	10,184	15,505	199,135	20,027
British Columbia— ..									
Coast	76,110	13,925	14,503	[2]	[2]	—	76,110	13,925	14,503
Interior	33,630	172,365	21,377	[2]	[2]	—	33,630	172,365	21,377
TOTALS, BRITISH COLUMBIA ..	109,740	186,290	35,880	[2]	[2]	—	109,740	186,290	35,880
TOTALS, ACCESSIBLE ..	214,030	1,080,100	132,712	36,220	604,610	58,635	250,250	1,684,710	191,347
TOTALS, INACCESSIBLE[3] ..	176,345	873,385	107,531	3,700	136,260	12,323	180,045	1,009,645	119,854
GRAND TOTALS ..	390,375	1,953,485	240,243	39,920	740,870	70,958	430,295	2,694,355	311,201

[1] Cubic volumes do not include wood in stumps and unusable tops.

[2] There are no available estimates of the relatively small quantities of hardwoods in British Columbia.

[3] Including estimates of stands in the Northwest Territories and Yukon.

250,250,000,000 board feet of logs in trees large enough to produce sawlogs and 1,684,710,000 cords of smaller material suitable for pulpwood, fuel, posts, mining timbers, etc.

Tables I and II give details of Canada's forest resources. Table I summarises the latest estimate of the total stand of timber in Canada, and Table II gives a breakdown of merchantable timber, by species.

Important Tree Species

There are in Canada over 130 distinct species of trees. Only 33 of these are conifers or softwoods, but they comprise over 80 per cent of the standing timber and 70 per cent of the wood utilised for all purposes. Of the deciduous-leaved or hardwood species, only about a dozen are of commercial importance as compared with twice that number of conifers.

Spruce.—There are five native spruce (Picea) species, all of commercial importance, furnishing over one-third of the total production of lumber. Pulpwood made from spruce is preferred to other kinds and comprises two-thirds of the total quantity of pulpwood produced. Spruce is also used extensively for building construction, boxes, cooperage and mining timbers.

Douglas Fir.—The Douglas fir (Pseudotsuga taxifolia) is Canada's largest tree and was for many years its most important source of lumber and square timber; it now ranks second to spruce. It is noted for its strength and durability and is used mainly in structural work.

Hemlock.—There are three hemlock (Tsuga) species in Canada, two of which are valuable timber trees. The wood is used chiefly for railway ties, and pulp construction.

Pine.—There are nine distinct pine species native to Canada, six of which are of great commercial importance. Eastern white pine (Pinus strobus) is especially valued on account of its softness, easy-working qualities, and low shrinkage. It has a wide variety of uses. This species was, up to the end of the last century, the most important wood in Canada in point of quantity of lumber sawn and square timber exported, but now ranks fourth after spruce, Douglas fir and hemlock.

Balsam Fir.—Four species of balsam fir (Abies balsamea) are found in Canada. The wood is used extensively in the manufacture of wood-pulp and also as lumber.

Cedar.—Two species of cedar are found in Canada: white cedar (Thuja occidentalis), which is confined to moist situations in the east, and western red cedar (Thuja plicata), which grows to a tremendous size and is abundant in British Columbia. The wood is noted for its durability and low shrinkage and is used for all structural work exposed to the weather, such as shingles, building construction, expecially greenhouses, railway ties, poles and fence posts.

Tamarack or Larch.—The eastern tamarack (Larix laricina) is found chiefly in swampy situations. The western species (Larix occidentalis), which grows on better sites and attains considerable size, is of more importance. The wood of these two species is cut into lumber and is used also for railway ties and in general construction.

Birch.—Birch is Canada's most important hardwood. While there are at least six native species, only two are worthy of note, viz., yellow (Betula lutea) and white birch (Betula papyrifera). Yellow birch is in great demand for flooring, cabinet work, and interior finish. Both white and yellow birch are used for veneers.

Maple.—Maple (Acer) is second in importance to birch as a hardwood. There are ten species scattered throughout Canada, of which the sugar maple, or hard maple (Acer saccharum) is the most important. The lumber of this species is used for flooring, interior finish and cabinet work, while the tree itself is the source of the sap from which maple syrup and sugar are made.

TABLE II

VOLUMES OF MERCHANTABLE TIMBER, BY SPECIES

In Millions of cubic feet

Species	*Accessible*	*Inacessible*	*Total*
Spruce	61,145	43,783	104,928
Balsam fir	23,505	22,162	45,667
Douglas fir	5,256	5,708	10,964
Hemlock	5,628	6,902	12,530
White pine	2,991	140	3,131
Red pine	810	—	810
Jack and lodgepole pines	26,209	23,156	49,365
Ponderosa pine	411	307	718
Cedar	5,868	4,797	10,665
Larch	622	278	900
Yellow cedar	267	298	565
TOTAL CONIFERS	132,712	107,531	240,243
Poplar	23,201	8,262	31,463
White birch	18,498	4,061	22,559
Yellow birch	6,375	—	6,375
Maple	6,654	—	6,654
Beech	1,845	—	1,845
Elm	837	—	837
Ash	487	—	487
Basswood	467	—	467
Oak	103	—	103
Other hardwoods	168	—	168
TOTAL HARDWOODS	58,635	12,323	70,958
TOTALS, ALL SPECIES	191,347	119,854	311,201

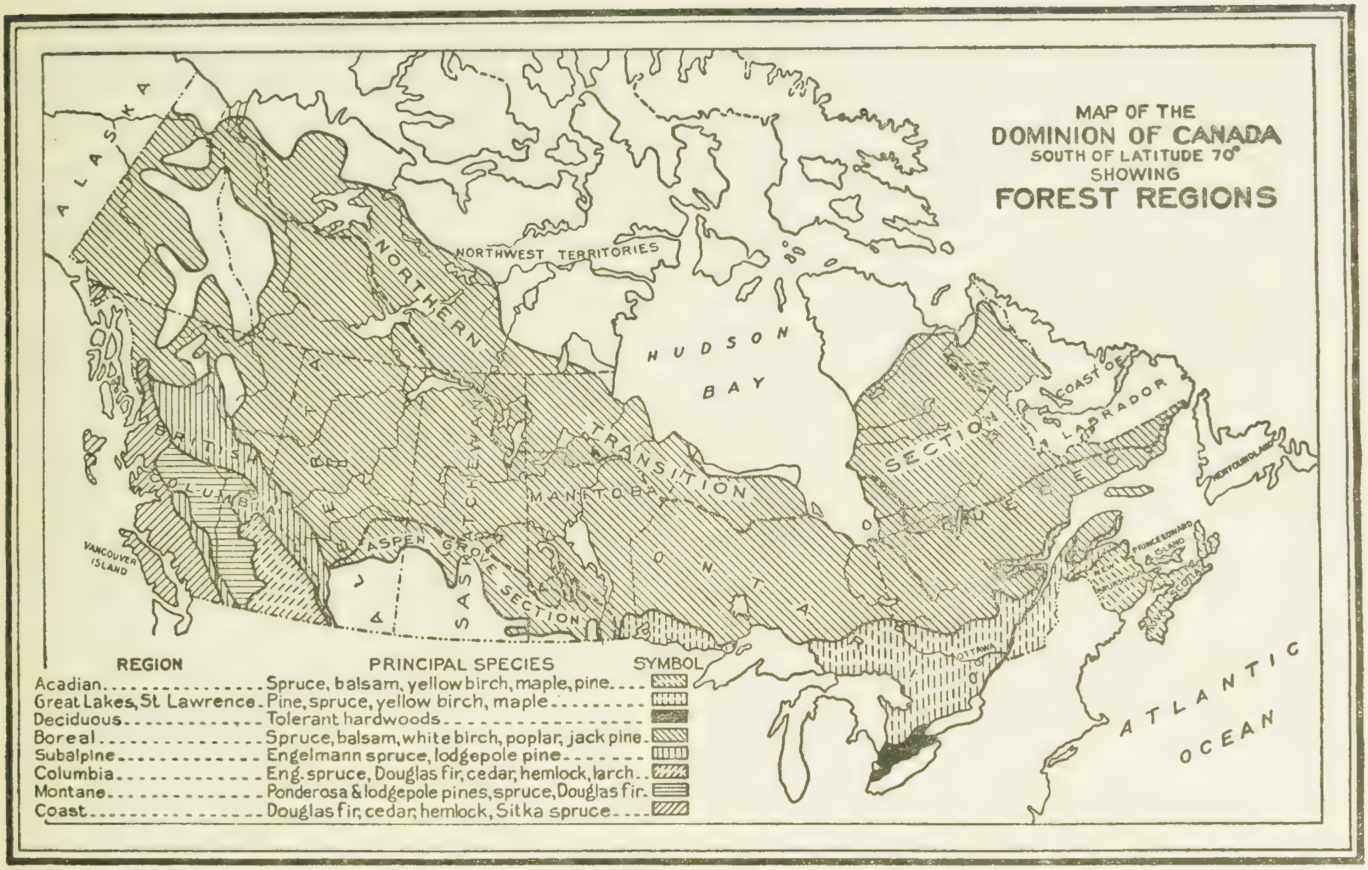
NOTE.—Volumes do not include wood in stumps and tops.

Basswood.—Basswood (Tilia glabra), being soft and easily worked, is a valuable wood for certain kinds of cabinet making.

Minor Species.—Elm (Ulmus), represented by three species in Canada, is a valuable vehicle wood. Beech (Fagus grandifolia), ash (Fraxinus), oak (Quercus), butternut (Juglans cinerea), chestnut (Castanea dentata), red alder (Alnus rubra), hickory (Carya), yellow cedar (Chamaecyparis nookatensis), cherry (Prunus serotina) and black walnut (Juglans nigra) are all valuable woods used for lumber in Canada, but owing to scarcity, are of minor commercial importance.

Forest Regions

The forests of Canada cover a vast region in the north temperate climatic zone, reaching from the Atlantic Ocean to the Pacific; they extend northward from the international boundary to beyond the Arctic Circle. Wide variations in climatic, physiographic and soil conditions


MAP OF THE
DOMINION OF CANADA
SOUTH OF LATITUDE 70°
SHOWING
FOREST REGIONS
ALASKA
NORTHWEST TERRITORIES
NORTHERN TRANSITION SECTION
HUDSON BAY
COAST OF LABRADOR
QUEBEC
NEWFOUNDLAND
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
ASPEN GROVE SECTION
VANCOUVER ISLAND
PRINCE EDWARD ISLAND
NEW BRUNSWICK
NOVA SCOTIA
OTTAWA
ATLANTIC OCEAN
REGION
PRINCIPAL SPECIES
SYMBOL
Acadian — Spruce, balsam, yellow birch, maple, pine
Great Lakes, St. Lawrence — Pine, spruce, yellow birch, maple
Deciduous — Tolerant hardwoods
Boreal — Spruce, balsam, white birch, poplar, jack pine
Subalpine — Engelmann spruce, lodgepole pine
Columbia — Eng. spruce, Douglas fir, cedar, hemlock, larch
Montane — Ponderosa & lodgepole pines, spruce, Douglas fir
Coast — Douglas fir, cedar, hemlock, Sitka spruce

FOREST REGIONS

Canada's forests may be divided on an ecological basis into eight regions*, each of which is characterised by the dominance of certain tree species and forest types. Boundaries and principal species of these regions are indicated by the accompanying map, although many details are omitted because of the smallness of the scale. Differences in the forests of these regions are caused by varying climate, geology, topography, and soils, of which the most important factor is climate. Each region may be further subdivided into sections on the basis of minor differences in forest conditions.

The map shows clearly that the Boreal Forest Region covers a far larger area than the other seven regions combined. Two sections of the Boreal forest are shown on the map because of their special characteristics—one along the northern margin, and the other bordering the open prairies. The Northern Transition Section is an area of scattered and stunted tree growth which cannot be expected to produce merchantable timber because of the extreme rigour of the climate. The Aspen-Grove Section is a zone of transition between true forest and the semi-arid grasslands.

The relative importance of the principal forest regions, based on gross areas, is shown in the following table:—

Region	*Per cent of Total Forest Formations*
Boreal Forest	81·0
Great Lakes-St. Lawrence	7·0
Sub-alpine	4·0
Coast	2·4
Montane	2·4
Acadian	2·0
Columbia	0·8
Deciduous	0·4
	100·0

The importance of the Coast Forest Region is much greater than its small area might suggest, because of the size and kinds of timber it contains and the rapid growth of its forests.

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* For more detailed discussion of forest regions see Dominion Forest Service Bulletin 89, " A Forest Classification for Canada," by W. E. D. Halliday.

cause marked differences in the character of the forests in different parts of the country, hence more or less well-defined forest regions may be recognised.

The Acadian Forest Region includes the Provinces of Nova Scotia and Prince Edward Island, and all but the northwest corner of New Brunswick. There is a general coniferous character to the Region, especially in the northern parts of New Brunswick and Cape Breton Island. Mixed forests, interspersed with so-called " hardwood ridges," are common, however, occurring more frequently in the southern parts of New Brunswick and Nova Scotia.

The Great Lakes-St. Lawrence Forest Region, centreing on the Great Lakes system and extending eastward down the St. Lawrence Valley, occupies a middle position between predominantly coniferous forests to the north and deciduous forests to the south. The characteristic species are white pine, red pine and hemlock, associated with the maples, yellow birch and, in some sections, white birch, beech and basswood. Aspen, cedar and jack pine are widely distributed, and spruce and balsam fir are common in certain localities.

The Deciduous Forest Region consists of a small northerly intrusion from the great forest of the same type in the United States, and occupies the southwestern portion of what is commonly referred to as the Ontario Peninsula. Among the characteristic trees are beech and sugar maple, together with basswood, red maple and several oaks. Coniferous species are largely represented by scattered specimens of white pine, hemlock and red juniper.

The Boreal Forest Region covers the greater part of the land area of Canada. It stretches unbrokenly from the Atlantic Coast of Quebec westward to Alaska. Along its southern side it follows the limits of the Great Lakes-St. Lawrence Region, then skirts the open grasslands of the Prairie Provinces, and is terminated in the west in the foothills of the Rocky Mountains. To the north it is bounded by the limits of tree growth. The principal trees of the Region are white and black spruce, balsam fir, poplars, white birch and jack pine. Near the foothills of the Rocky Mountains the latter species is replaced by lodgepole pine. Included in this Region are two very characteristic Sections: The Northern Transition Section, which has no forests of commercial value but represents a transition from the merchantable forests of the south to the treeless wastes of the Far North; white and black spruce, larch and white birch, usually of stunted growth, are the principal tree species; and the Aspen Grove Section, lying entirely within the Prairie Provinces, forming a zone of transition between the true forest region to the north and the open grasslands to the south. Aspen is the dominant tree, and is in sole possession of most of the area.

The Sub-Alpine Forest Region is essentially a coniferous forest. It extends from the grasslands of the prairies and the western border of the Boreal Region up the eastern slopes of the Rockies to timber-line. This same type of forest reappears in a narrow strip extending northwesterly from the International Boundary between the plateaux of the Montane Region and the non-forested tundra formation of the mountain tops of the Coast Ranges. The dominant trees are Englemann spruce, alpine fir and lodgepole pine.

The Columbia Forest Region, often referred to as the Interior Wet Belt of British Columbia, supports forests that are somewhat similar in composition to those of the Coast region, the principal species consisting of Englemann spruce, western red cedar, western hemlock and Douglas fir. Among other species of considerable importance are alpine and grand firs, western white pine and western larch. Black cottonwood is also found on rich alluvial soils.

The Montane Forest Region forms part of what is often termed the Interior Dry Belt of British Columbia. It occupies an extensive series of plateaux, valleys and ranges in the interior of the Province, which extends northward from the International Boundary to the valley of the Skeena River. The principal tree species are ponderosa pine, Douglas fir, lodgepole pine and aspen.

The Coast Forest Region includes the western slope of the Coast and Cascade Mountains and the insular system, the higher elevations of which form Vancouver Island, the Queen Charlotte group and other islands along the coast. The dominant trees are western hemlock and western red cedar. Associated with these are Douglas fir in the south and Sitka spruce in the north. All four of these species grow to large sizes. Of much less importance are yellow cedar, mountain hemlock, amabilis, grand and alpine firs, and western white pine. Of the broad-leaved trees, black cottonwood is the most important from the commercial point of view.

Forest Depletion and Increment

The average annual rate of depletion of reserves of merchantable timber during the ten years 1936-45 was 3,296,772,000 cu. ft. Of this total, 74 per cent was felled for domestic and commercial use and 26 per cent was destroyed by fire and pests. Of the 2,443,225,000 cu. ft. utilised, 38 per cent was used in sawlogs, 29 per cent for fuel, 29 per cent for pulpwood, and 4 per cent in miscellaneous products. Between 75 and 80 per cent of the total cut was of softwood species. Losses by fire averaged 353,547,000 cu. ft. annually, and insects and tree diseases destroyed about 500,000,000 cu. ft. each year.

Practically all of the annual depletion or drain on the forest is concentrated on the 435,000 square miles of productive forest which is classed as accessible, and replacement of normal depletion by this area alone requires an average growth rate of more than 12 cu. ft. Complete estimates of the rates at which the forests of Canada grow are not yet available.

Natural reproduction of forest tree species is fortunately prolific in most parts of Canada. After an area has been cut over or burned, young growth usually appears within a short time. Thus, the re-establishment of some sort of forest growth is a less difficult problem than it is in many other countries. There is, however, no guarantee that the species reproduced will be of the kinds desired by industry. The introduction of better methods of forest management, including the provision of more adequate forest protection, can make the forests of Canada more productive than they have ever been. It is true that stocks of very large trees, whose growth required upwards of 300 years, are disappearing and will not be replaced; but, though the forest industries of the future must use smaller logs than did those of the past, good forest management can make possible a considerable expansion of those industries as and when market conditions warrant.

Forest Administration

Although the forest resources are, generally speaking, under the control of the provinces, forests of the National Parks, Forest Experiment Stations and the Northwest Territories and Yukon are administered by the Dominion Government.

In Canada the general policy of both the Dominion Government and the Provincial Governments has been to dispose of the timber by means of licenses to cut, rather than to sell timber-land outright. Under this system the State retains ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage (either in lump sums or in payments made as the timber is cut); ground-rents and fire protection taxes are collected annually. Both ground-rent and Crown dues may be adjusted at the discretion of the governments.

The forests under Dominion control are administered by the Department of Mines and Resources. The National Parks Bureau has charge of the National Parks, and the Bureau of Northwest Territories and Yukon Affairs administers the timber in those areas. The Indian Affairs Branch administers, in trust for the Indians, the timber limits within their reservations. The Dominion Forest Service has charge of the Forest Experimental Stations.

With the exception of relatively small areas owned by the Dominion Government, the Crown lands and the timber on them are administered by the provinces in which they lie. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for the forest is set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis.

Forest Protection

The Dominion Government is responsible for fire-protection of the forests which it administers. Each of the Provincial Governments, except that of Prince Edward Island maintains a fire-protection organisation co-operating with owners and licensees for the protection of all timber areas, the cost being distributed or covered by special taxes on timberlands. In all these provinces the use of fire for clearing and other legitimate purposes is regulated and close seasons during dangerous periods are enforced. In the Province of Quebec a number of co-operative protective associations have been organized among lessees of timber limits. Under the Dominion Railway Act, which is administered by the Board of Transport Commissioners, the railways are required to employ fire-ranging staffs for fire-protection along railway lines. There is close co-operation between all staffs engaged in this work.

To help combat the mounting loss and and damage through forest insects, the Dominion Government set up in 1945 a Forest Insects Control Board. The purpose of this Board is to secure additional funds when necessary to supplement the functions of existing services and co-ordinate their several efforts into one cohesive programme with a view to expediting the solution of the forest insect problem in Canada.

The various governmental forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association.

Scientific Forestry

The management of forests so as to ensure a sustained yield is forestry's great problem. In the five experimental stations which it operates, the Dominion Forest Service conducts investigations of the underlying principles governing the growth of forests and tests practical methods of management.

The Dominion and provincial forest services and the pulp and paper and lumber companies employ about 600 technical foresters. In addition to administrative work these men carry on forest surveys for the estimation of timberlands and making of maps or to determine natural growth and reproduction conditions and factors. They also direct any planting or nursery work and the regulation of commercial logging operations along forestry lines.

The extensive use of aerial photography is an outstanding development of recent years. It is now possible not only to delineate the different forest types but also to obtain from air photographs information that facilitates the preparation of quantitative timber estimates, and greatly reduces the amount of groundwork required. Aerial photographs covering about 1,000,000 square miles are now available from which about 135,000 square miles of forests have been mapped and classified. The Dominion Forest Service has taken a leading part in the development of methods for the interpretation of air photographs for forestry purposes.

Forest products research is carried on at three laboratories of the Department of Mines and Resources. The main Forest Products Laboratories, located at Ottawa, deal with all phases of wood utilisation except those pertaining particularly to the manufacture of pulp, paper, and related products. The latter are conducted at the Pulp and Paper Laboratory at Montreal, for which the Canadian Pulp and Paper Association provides accommodation and financial assistance. A third laboratory is maintained at Vancouver to deal with special problems in connection with the forest products of British Columbia.

Research projects in connection with timber mechanics, wood preservation, lumber seasoning, wood chemistry, timber pathology, timber physics, and wood utilisation are conducted at the Ottawa and Vancouver Laboratories; analysis and testing of pulp and paper, methods of mechanical pulping, chemical pulping, printing, and fundamental studies are carried on at the Montreal Laboratory.

FOREST UTILISATION

Operations in the Woods

The forests provide the raw material for the sawmills and pulp-mills, as well as for wood distillation, charcoal, excelsior, veneer and other plants. They also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts, fence-rails, mining timber and other primary products which are finished in the woods ready for use or exportation.

Differences in forest conditions throughout Canada give rise to differences in logging methods. Generally speaking, throughout Eastern Canada the climate is such that the cutting and hauling of logs can be carried on most economically during the fall and winter months. Connected systems of lakes and streams make it possible in most cases to float logs from the forest to the mill at a minimum cost during the annual spring freshets. The logging industry east of the Rocky Mountains is, therefore, almost entirely seasonal.

In British Columbia the enormous size of the trees and the rugged character of the country give rise to entirely different logging and sawing methods. Because these operations necessitate the use of expensive special equipment, involving great capital investments and operating costs, the lumber industry in British Columbia is concentrated in large production units, except in the interior of the province, where the trees are smaller and operating conditions closely resemble those of Eastern Canada. The operations on the Coast, not being dependent on frost, snow or freshet, are carried on in most cases through the entire year.

It has been estimated that operations in the woods of Canada in 1946 furnished employment during the logging season equivalent to 41,638,000 man-days or approximately 138,793 man-years, and that over $277,000,000 in wages and salaries were distributed. The number of persons employed during the year is actually much greater than indicated above, because of the seasonal nature of the operations in most parts of the country.

The Lumber Industry

During the French régime and after the cessation to England until the American Revolution, lumbering in Canada did little more than supply the domestic needs of the inhabitants. Distance from France or England proved to be an insuperable obstacle to all attempts at developing markets in those countries. Canada's forest products first gained a foothold on the British market only when Great Britain found herself suddenly deprived of her carefully fostered source of masts in New England and turned to the pineries of New Brunswick for a reliable source of supply. About the same time the West Indies began purchasing from the loyal colonies of the north the supplies which they could no longer secure from New England. But it took another political upheaval to create a real market for Canada's timber. Following the French Revolution, the Baltic was closed to British trade, and again Great Britain turned to her North American colonies for the timber she so badly needed.

After the Napoleonic wars were over, the so-called " differential duties " were maintained at a high level for many years, and the Canadian timber trade prospered even when the preference was gradually reduced from 1842 to 1851 and removed altogether in 1860.

The trade with Great Britain began declining rapidly in the 'seventies, but at about the same time mounting demand for lumber in the United States and improved means of transportation, by canals and later by railways, began to be felt in Canada. In 1868 exports of wood products from Ontario and Quebec to the United States exceeded for the first time similar exports to Great Britain.

From the end of the nineteenth century until after the first Great War, a tremendous expansion took place on both sides of the border. All this prosperity had its repercussions on the Canadian lumber industry which now had a fairly important domestic market, while the United States market continued to absorb all that was offered to it and the trade with Great Britain remained fairly steady, although not as important as in former years.

In 1911 the total Canadian production of lumber reached a peak of 4,918,202 thousand feet board measure. However, a good part of this was from British Columbia and the Eastern Canadian industry was already struggling to hold its own, even in the domestic market.

Lumbering in British Columbia had begun with the advent of the fur traders. There was, however, little expansion before 1880, when construction of the trans-continental railway began. The industry reached its pre-first war peak in 1910, in which year production of lumber alone amounted to 1,619,904 M ft.

After the war of 1914-18 the Eastern industry declined rapidly, but in British Columbia, where production had fallen considerably because of lack of shipping space during the hostilities, there was an immediate improvement. The lumber industry in British Columbia rose rapidly until in 1926 it accounted for more than half of the total Canadian production, a position it has consistently maintained ever since. It recorded its highest point in 1929 with 2,460,500 M ft.b.m. out of a total of 4,741,941 M ft.b.m. for all Canada.

In 1932, however, following the world-wide depression and the adoption of the Smoot-Hawley tariff in the United States, production fell to only 934,373 M ft.b.m. in British Columbia and to 1,809,884 M ft.b.m. in all Canada.

The Ottawa Conference in 1932 gave fresh impetus to lumber production in Canada as a whole. From 1933 until the start of the second World War there was an almost continuous recovery. As a result of the trade agreements with the United States, this market has been open to Canadian lumber since 1936.

Production of sawn lumber increased greatly during the first years of the war. From 3,976,882 M ft. in 1939 it rose to 4,629,052 M ft. in 1940 and to 4,941,084 M ft. in 1941. Production in 1942 was only slightly lower than in 1941, amounting to 4,935,145 M ft. Chiefly on account of the scarcity of man-power it fell to 4,363,575 M ft. in 1943 but rose again to 4,512,232 M ft. in 1944, 4,514,160 M ft. in 1945 and to an all-time high of 5,083,280 M ft. in 1946. Table III gives the production of sawn lumber by regions, for the years 1938 to 1946. Table IV gives the volume and value of lumber sawn, by kinds of wood, for the same period.

In addition to lumber, Canadian sawmills produce a large number of other products. Table V gives details for the most important and also the total value of all sawmill products for the years 1938 to 1946. In addition to the specified items, the value for " All sawmill products " includes staves, headings, pickets and many other products. Until 1944 this amount also comprised a fairly large proportion of the production of veneers and plywoods which now form a separate industry in the Wood-using industrial group.

In 1946, 6,001 sawmills, tie, shingle, lath, stave, heading and hoop mills and mills for cutting-up and barking or rossing pulpwood were in operation. Employees numbered 49,352 on an annual basis, and wages and salaries amounted to $63,811,260. The logs, bolts and other materials and supplies used by the industry were valued at $156,107,527 and the gross value of production was $287,910,057. The net value of production or value added by manufacture was $129,408,392.

In the years immediately preceding the last war, about half, by volume, of the Candian production of lumber was exported. This in itself represents a large trade, but the lumber industry also produces many other commodities such as shingles, sawn ties, laths, spoolwood, box shooks, etc., chiefly for the export markets. The importance of exports to the prosperity of the industry is, therefore, considerable.

Planks and boards alone ranked sixth among the leading commodities[1] exported from Canada in 1938, the last complete peace year. In that year 44·1 per cent by value of Canada's exports of lumber and lumber products went to Great Britain, 38·5 per cent to the United States, 6·9 per cent to Australia, 2 per cent to Africa, 1·7 per cent to the West Indies, 1·8 per cent to Continental Europe and 1·4 per cent to China.

Table VI gives details of exports of planks, boards and square timber for the years 1941 to 1946.

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[1] The first five, in order of importance, were newsprint paper, wheat, nickel, copper bars, rods, etc., and meats.

TABLE III

LUMBER SAWN, BY REGIONS, 1938 TO 1946

Year	Maritime Provinces		Quebec		Ontario		Prairie Provinces		British Columbia		Canada	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	M ft. b.m.	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$
1938	369,413	6,889,183	724,652	15,403,296	439,397	11,081,402	190,013	3,100,690	2,044,876	36,158,847	3,768,351	72,633,418
1939	368,584	7,288,723	656,374	13,715,313	481,527	12,320,233	194,364	3,236,277	2,276,033	41,771,293	3,976,882	78,331,839
1940	586,915	12,703,828	795,374	18,538,393	607,016	16,718,170	315,339	5,922,530	2,324,408	52,108,296	4,629,052	105,991,217
1941	589,425	14,960,727	914,691	24,401,637	602,248	19,048,059	426,390	9,242,576	2,407,800	61,612,222	4,941,084	129,287,703
1942	588,184	17,697,366	1,010,510	31,752,397	625,433	22,460,700	406,798	10,172,204	2,303,552	67,741,700	4,935,145	149,854,527
1943	542,784	18,890,446	961,946	35,170,296	544,490	21,261,613	371,915	10,743,727	1,941,966	65,808,102	4,363,575	151,899,684
1944	531,930	20,727,234	1,010,361	41,603,134	587,237	25,470,014	399,769	12,437,599	1,982,478	70,080,622	4,512,232	170,351,406
1945	529,055	22,564,220	1,029,313	45,790,905	522,497	23,825,561	377,947	12,490,140	2,055,082	76,354,956	4,514,160	181,045,952
1946	658,951	29,960,587	1,161,607	55,249,378	673,441	34,181,404	419,879	14,392,305	2,169,096	96,382,732	5,083,280	230,189,699

Until 1941 production of lumber in the Yukon Territory was included with British Columbia. It is now compiled separately but is shown here in the totals for Canada only.

TABLE IV

LUMBER SAWN, BY SPECIES, 1938 TO 1946

Year	Spruce		Douglas fir		Hemlock		White pine		Jack pine and lodge-pole pine		Yellow birch	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	M ft. b.m.	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$
1938	1,008,969	19,453,277	1,401,598	24,625,367	383,968	5,310,854	281,565	7,757,378	94,616	1,679,982	123,080	3,118,820
1939	978,706	19,027,517	1,595,261	28,615,067	396,649	5,932,255	289,074	8,079,733	93,471	1,640,384	109,666	2,904,877
1940	1,431,203	32,557,173	1,691,986	35,158,029	338,681	6,605,736	349,597	10,652,785	109,113	2,184,528	131,479	3,562,025
1941	1,818,157	47,205,600	1,525,479	36,009,103	344,597	7,772,920	324,885	10,607,531	147,919	3,686,234	144,662	4,670,548
1942	1,637,043	49,060,766	1,534,419	42,148,842	433,675	12,129,442	308,818	11,495,867	167,249	4,262,307	181,942	6,945,751
1943	1,538,601	55,024,881	1,233,953	38,112,689	396,009	12,336,479	279,456	12,060,423	174,330	5,364,285	174,331	7,579,330
1944	1,569,074	60,586,541	1,140,691	38,072,933	480,413	15,568,772	294,435	13,784,715	194,728	7,124,798	174,183	8,240,340
1945	1,630,299	66,156,300	1,151,201	40,428,294	495,977	17,950,751	282,750	14,277,501	158,353	6,225,695	164,413	8,483,758
1946	1,782,598	75,983,581	1,128,325	48,660,805	589,091	25,782,165	351,490	19,811,249	236,345	9,897,015	187,353	10,040,288

TABLE IV—*contd.*

LUMBER SAWN, BY SPECIES, 1938 TO 1946.

Year	*Cedar*		*Balsam fir*		*Red pine*		*Maple*		*Tamarack or Larch*		*Poplar*	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	M ft. b.m.	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$
1938	151,485	3,976,066	123,061	2,164,990	37,821	879,701	42,125	1,204,192	9,247	142,817	11,568	171,356
1939	178,728	5,152,984	121,684	2,042,987	57,406	1,427,601	39,338	1,118,550	15,826	236,605	15,233	225,495
1940	184,956	6,324,602	125,425	2,561,535	60,078	1,622,813	51,686	1,460,061	18,369	287,881	24,211	357,042
1941	214,182	8,063,411	128,481	2,883,750	72,998	2,265,942	51,308	1,877,492	21,899	398,491	25,368	435,714
1942	193,851	7,486,370	122,408	3,378,991	78,655	2,827,255	66,416	2,843,283	26,597	593,341	33,113	689,106
1943	142,715	6,163,469	90,063	2,884,304	81,289	3,104,175	56,515	2,625,704	35,233	887,832	32,810	842,287
1944	156,873	7,206,260	116,251	4,310,199	69,076	2,953,605	69,935	3,495,663	50,484	1,383,548	47,007	1,367,001
1945	189,351	8,799,048	94,150	3,727,838	56,179	2,546,966	66,198	3,568,918	38,725	1,157,643	44,983	1,504,330
1946	221,860	12,447,838	129,019	5,493,437	62,121	3,181,180	103,971	6,123,144	44,259	1,465,941	67,027	2,470,537

Year	*White birch*		*Basswood*		*Ponderosa pine*		*Elm*		*Aspen*		*Other Kinds*	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	M ft. b.m.	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$
1938	13,771	277,715	22,949	606,928	28,128	461,455	14,381	327,652	4,892	70,013	15,127	404,855
1939	13,269	279,928	20,034	537,473	19,424	325,205	13,411	303,539	4,885	76,301	14,817	405,338
1940	16,136	377,790	26,256	729,505	28,692	518,604	16,232	387,671	6,407	99,173	18,545	544,264
1941	21,693	616,961	29,351	948,174	23,489	477,419	15,969	475,791	9,304	167,224	21,343	725,398
1942	31,698	1,101,413	33,106	1,293,264	22,733	581,227	20,870	798,636	10,082	216,178	32,470	1,638,488
1943	27,467	1,067,975	26,103	1,140,822	19,271	576,696	17,198	729,234	16,193	399,260	22,038	999,839
1944	32,374	1,350,110	29,453	1,381,350	16,277	503,440	22,484	1,025,656	21,311	626,066	27,183	1,370,409
1945	36,117	1,613,753	23,175	1,201,495	17,277	565,914	17,229	819,289	23,826	747,019	23,957	1,271,390
1946	44,465	2,176,198	33,028	1,804,093	18,366	700,625	23,037	1,221,774	27,434	990,881	33,491	1,938,978

TABLE V

PRINCIPAL OTHER SAWMILL PRODUCTS AND TOTAL VALUE OF ALL SAWMILL PRODUCTS, 1938 TO 1946

Year	*Shingles*		*Ties*		*Laths*		*Spoolwood*		*Pulpwood cut-up or barked*		*Box Shooks*	*All sawmill products*
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Value*	*Value*
	Squares[1]	$	*No.*	$	*M*	$	*M ft. b.m.*	$	*Cords*	$	$	$
1938	2,761,978	6,894,654	4,699,331	2,344,596	239,467	656,320	9,530	331,805	379,535	3,775,583	990,096	92,855,906
1939	3,469,411	9,048,876	4,482,007	2,321,469	163,686	476,252	11,597	429,759	230,980	2,124,914	1,186,511	100,132,597
1940	3,823,251	9,597,497	4,985,209	2,464,427	216,465	688,167	20,100	791,980	518,486	4,987,394	1,979,117	133,905,384
1941	4,160,772	12,309,632	4,710,556	2,854,958	204,991	731,227	19,948	889,062	553,701	5,609,752	2,247,774	163,412,292
1942	3,720,482	13,191,084	4,883,408	3,314,626	181,994	737,874	17,888	847,549	687,819	7,175,538	3,877,320	192,919,077
1943	2,565,752	10,020,804	4,139,767	3,362,116	114,029	554,278	15,448	866,774	509,291	7,265,985	4,280,012	195,885,336
1944	2,697,724	11,411,359	7,579,560	7,621,538	110,639	645,010	19,039	1,205,338	564,271	9,542,128	6,763,691	216,556,623
1945	2,665,432	11,737,224	6,340,176	6,486,261	117,731	752,245	23,671	1,793,053	668,126	12,380,071	7,457,964	231,108,030
1946	2,646,026	14,512,796	6,594,069	7,369,966	134,591	908,564	30,701	2,574,402	651,233	13,979,926	8,255,818	287,910,057

[1] A " square " represents sufficient material to cover 100 square feet when applied to the roof.

TABLE VI

CANADIAN EXPORTS OF PLANKS, BOARDS AND SQUARE TIMBER, 1941–1946

Country	1941		1942		1943		1944		1945		1946	
	Quantity	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*	*Quantity*	*Value*
	M ft. b.m.	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$	*M ft. b.m.*	$
British—												
United Kingdom	826,804	25,179,948	647,392	22,634,538	902,539	35,881,525	851,537	38,569 538	878,663	39,217,064	709,522	36,508,137
British South Africa ..	62,421	2,298,651	24,241	1,280,341	32,300	1,442,617	41.904	2,433 424	60,168	3,780,602	145,365	12,739,007
Australia	52,986	1,489,136	12,420	594,280	45,045	2,118,795	55,968	2,194 349	67,524	2,733,695	61,654	3,831,347
British West Indies ..	27,591	1,043,342	9,761	456,598	8,475	483,264	20,708	1,291,110	15,805	1,043,874	24,016	1,654,224
Eire	1,352	52,191	—	—	—	—	—	—	2,152	82,582	22,800	1,398,159
Palestine	—	—	—	—	—	—	20	939	1,774	155,582	7,959	640,877
Southern Rhodesia	5,750	321,901	1,996	87,951	2,742	162,334	2,395	135,272	4,514	237,014	5,866	474,764
New Zealand	2,589	145,303	2,318	168,798	2,432	111,776	3,197	143,381	4,455	216,410	7,617	468,289
British Sudan	190	8,814	24	783	—	—	—	—	—	—	5,687	430,562
Newfoundland	14,436	603,413	23,607	1,021,519	5,251	371,432	5,735	426,216	5,568	409,645	5,981	403,007
Fiji Islands	7,197	233,182	3,899	164,248	1,827	81,764	4,321	206,062	1,733	82,121	2,787	131,937
Other British countries ..	9,512	340,955	2,185	147,415	1,609	94,322	3,994	209,576	7,918	604,602	7,913	444,693
TOTALS BRITISH ..	1,010,828	31,716,836	727,843	26,556,471	1,002,220	40,747,829	989,779	45,609,867	1,050,274	48,563,191	1,007,167	59,125,003
Foreign—												
United States	1,231,588	41,506,390	1,432,128	53,406,452	730,479	33,622,548	878,603	44,562,967	929,417	50,209,833	964,673	60,452,695
China	6,999	129,748	—	—	—	—	—	—	—	—	32,479	1,820,928
Egypt	1,933	79,433	634	33,180	425	23,708	2,039	94,695	1,875	82,492	13,189	729,376
Netherlands	—	—	—	—	—	—	—	—	1,279	64,476	12,014	515,136
Argentina	16,035	369,500	4,266	129,874	—	—	—	—	—	—	8,893	510,385
Mexico	—	—	—	—	4	553	—	—	5	636	7,665	316,826
Portuguese Africa	6,946	186,483	2,387	79,674	—	—	1,132	57,924	46	1,897	3,708	243,002
Iceland	11,897	391,540	9,419	360,339	6,043	269,211	8,915	509,253	6,548	439,269	3,338	241,176
Belgium	—	—	—	—	—	—	—	—	684	37,672	3,523	204,213
Other Foreign countries ..	14,649	433,366	3,279	125,905	2,105	74,655	2,051	114,818	10,914	595,115	26,636	2,033,806
TOTALS FOREIGN ..	1,290,047	43,096,460	1,452,113	54,135,424	739,056	33,990,675	892,740	45,339,657	950,768	51,431,390	1,076,118	67,067,543
GRAND TOTALS ..	2,300,875	74,813,296	2,179,956	80,691,895	1,741,276	74,738,504	1,882,519	90,949,524	2,001,042	99,994,581	2,083,285	126,192,546

Since the cessation of hostilities the lumber industry has not only maintained its high level of production but increased it. The domestic demand for lumber is very great and the export markets appear to offer even greater opportunities for Canadian lumber.

Canadian forests can provide the raw material for large-scale production for many years to come, if wise policies are adopted to reduce wastage through fires, insects and tree diseases, and to encourage good forest management in general.

The Pulp and Paper Industry

Paper manufacturing began in Canada early in the past century. The first mill was established in 1803 and the second in 1810. Until Confederation the industry was confined to the manufacture of paper from rags. The supply of rags being limited, paper-makers experimented with fibres from the stems, leaves and other parts of numerous annual plants. The small proportion of paper-making material recoverable from such sources led to experiments in the use of wood and to the conclusion that spruce, balsam and hemlock were most suitable for manufacture of paper of the average grades.

The first wood grinder in America was installed in 1866 at Valleyfield, Quebec, and began the manufacture of wood-pulp by the mechanical process. The first chemical wood-pulp mill in Canada, using caustic soda to dissolve the non-cellulose components, began production in 1869. These two pulp-mills, however, are not mentioned in the census of 1871, which covers only the 21 paper mills in operation, 12 located in Ontario, seven in Quebec and one each in New Brunswick in Nova Scotia. These paper mills had 760 employees, distributed $197,815 in wages and salaries and produced paper valued at $1,071,651. Ten years later, in 1881, there were 36 paper- and five pulp-mills in operation, whose output was valued at $2,509,993.

During the next decade the use of wood-pulp in paper-making was extensively developed. In 1887 the first mill using a bisulphite liquor to separate cellulose from other wood substance was installed in Canada. The census of 1891 shows only a slight increase in paper production, but the number of pulp-mills had grown to 24.

At the beginning of the present century the output of the pulp and paper industry exceeded eight million dollars. From then until the first Great War the industry increased rapidly and steadily. In 1907 the first mill in America to produce chemical pulp by the sulphate or kraft process was erected. Many new pulp- and paper-mills began operations in Eastern Canada and also in British Columbia. It was during this period that the paper industry began specialising in the production of newsprint. In 1918 production of the pulp and paper industry reached well over 100 million dollars.

The migration of the American newsprint industry was continued after the war of 1914-18. Besides the many new mills built during this period, most of the older ones added new paper machines, grinders and digesters and other equipment. In 1919 the pulp and paper industry had an annual capacity of 4,003,000 (short) tons of groundwood pulp, 2,101,000 tons of chemical pulp and 4,546,000 tons of paper. The 44 mills in Quebec accounted for $103,564,981 of the total 1939 production. Thirty-seven mills in Ontario accounted for $65,486,349, six mills in British Columbia for $16,005,957, and five mills in Nova Scotia, six in New Brunswick and one in Manitoba for the remainder ($23,095,008).

In 1939 the pulp and paper industry occupied first place among all manufacturing industries in Canada in respect of amount of capital employed and amount of salaries and wages paid. In numbers of employees and gross value of products it stood second to the sawmilling industry and the non-ferrous metal, smelting and refining industries respectively.

There are to-day three classes of mills in the industry. These, in 1946, numbered 31 mills making pulp only, 56 combined pulp-and-paper mills, and 26 mills making paper only. The gross value of products of the industry reached a new peak of $527,814,916 in 1946, the seventh consecutive year of record breaking increases.

The pulp and paper industry in Canada includes three forms of industrial activity: the operations in the woods with pulpwood as a product, the manufacture of pulp, and the manufacture of paper (chiefly newsprint) and other products derived from pulp. These three stages cannot be treated as entirely distinct nor can they be entirely separated from the different stages in the lumber industry. The same operations in the woods and in the drive frequently provide raw materials for both sawmill and pulp-mill and it is often impossible to state whether the timber being cut will eventually be made into lumber or pulpwood. This stage of the pulp and paper industry is not included in the statistics previously given for capital employed, employees, and salaries and wages paid.

Pulpwood.—In 1908, when detailed statistics for the pulp and paper industry were first collected, the apparent total production of pulpwood in Canada amounted to 1,325,085 cords valued at $7,732,055. Twenty years later it had grown to 6,295,912 cords worth $74,587,833. The maximum production was reached in 1946 with 10,523,256 cords valued at $183,085,359. Table VII shows the apparent production, exportation and importation of pulpwood for the calendar years 1908 to 1946.

Exports of pulpwood for the fiscal year ending June 30, 1890, were valued at $80,005. Ten years later exports to the United States reached $864,077, while those to Great Britain amounted to $38,370.

Since 1900 Dominion or provincial legislation and regulations have restricted or prohibited the exportation of unmanufactured pulpwood cut on practically all of the Crown lands in Canada. In 1908, when exportation from Quebec, New Brunswick and British Columbia was unrestricted, the total exports amounted to 842,308 cords and formed 63·6 per cent of the apparent total production. The ratio of exportation to total production has decreased steadily; although the volume of pulpwood exported has grown considerably, the proportion to total production amounted to only 17·6 per cent in 1946.

Except small quantities exported to Continental Europe from 1933 to 1939 and small shipments to the United Kingdom from 1940 to 1942, all pulpwood exports from 1902 to 1946 have gone to the United States.

Pulpwood exports reached a peak in 1942 with 1,987,850 cords valued at $20,314,253. Decreases followed in 1943 and 1944, but gains were recorded in the next two years, reaching 1,855,381 cords in 1946.

There has been a small importation of pulpwood into Canada during the last seventeen years. It is relatively unimportant and represents, for the greater part, material cut on limits in the United States and Newfoundland owned or controlled by mills operating in Canada.

Wood-pulp.—The rapid development of the pulp industry in Canada was due chiefly to the existence of abundant water-power adjacent to extensive forest resources of

TABLE VII

PULPWOOD PRODUCTION, DOMESTIC CONSUMPTION, EXPORTATION AND IMPORTATION, 1908-1946

Year	*Apparent total production of pulpwood in Canada*		*Canadian pulpwood used in Canada*		*Canadian pulpwood exported unmanufactured*		*Imported pulpwood used in Canada*	
	—	—	—	*Per cent of total production*	—	*Per cent of total production*	—	*Per cent of total consumption*
	Cords	$	*Cords*		*Cords*		*Cords*	
Average 1908-12	1,558,320	9,686,778	648,345	41·6	909,975	58·4		
,, 1913-17	2,530,359	18,277,132	1,521,698	60·1	1,008,661	39·9		
,, 1918-22	3,656,232	48,929,364	2,502,012	68·4	1,154,220	31·6	none reported	
,, 1923-27	5,189,017	63,125,308	3,774,719	72·7	1,414,298	27·3		
,, 1928-32	5,646,313	61,392,332	4,466,077	79·1	1,180,236	20·9	56,347	1·2
,, 1933-37	6,383,118	44,890,011	5,225,018	81·9	1,158,100	18·1	16,201	0·3
1938	6,438,344	53,761,999	4,686,085	72·8	1,752,259	27·2	33,668	0·7
1939	6,899,986	58,302,668	5,360,546	77·7	1,539,440	22·3	25,694	0·5
1940	8,499,922	74,347,132	6,948,493	81·7	1,551,429	18·3	47,626	0·6
1941	9,544,699	88,193,045	7,688,307	80·6	1,856,392	19·4	81	*
1942	9,653,574	103,619,151	7,665,724	79·4	1,987,850	20·6	1,714	*
1943	8,801,368	110,844,790	7,260,776	82·5	1,540,592	17·5	2,379	*
1944	8,668,566	124,363,926	7,169,430	82·7	1,499,136	17·3	8,209	0·1
1945	9,145,673	176,172,701	7,474,375	81·7	1,671,298	18·3	4,133	*
1946	10,523,256	183,085,359	8,667,875	82·4	1,855,381	17·6	16,881	0·2

* Less than one-tenth of one per cent.

pulpwood species, coupled with an increasing demand for newsprint paper in the United States. When, on account of the legislation already referred to, the exportation of pulpwood cut on Crown lands was restricted, many new pulp-mills were built in Canada to supply American paper-mills with the wood-pulp they could no longer produce themselves in sufficient quantity from imported pulpwood.

There are in Canada four methods of preparing wood-pulp, one of which is mechanical and three chemical. In the mechanical method, the barked and cleaned wood is held by hydraulic pressure against the surface of a revolving grindstone. The stone is constantly washed by water, which carries away the pulp in suspension. In the chemical processes, the previously barked and cleaned pulpwood is first reduced to chips about an inch long and a quarter of an inch thick or smaller, which are then screened, crushed and fed into digesters where they are cooked in the presence of a bisulphite liquor, caustic soda or sodium sulphate.

The sulphite process is the most important in use in Canada. The soda process, although the oldest, is not used extensively. It has been replaced by the sulphate (or kraft) process, a comparatively recent modification of the soda process, which is rapidly gaining in importance.

Statistics of the production of pulp in Canada are not available previous to 1908. In that year the production of 278,570 tons of mechanical pulp and of 84,509 tons of chemical pulp was reported. In 1928, or twenty years later, the production of mechanical pulp had risen to 2,127,699 tons of mechanical pulp and 1,392,755 tons of chemical pulp. Table VIII shows the production of wood-pulp for the calendar years 1908 to 1946.

In 1946 an all-time record production of 6,615,410 tons was reached, including 4,122,046 tons of mechanical pulp. The total value has increased steadily from 87,897,148 in 1938 to the unprecedented amount of $287,624,227 in 1946.

In 1908, 66 per cent of the total Canadian production of wood-pulp was exported, but this proportion dropped steadily during the next thirty years until it only amounted to 15·1 per cent in 1938. Table IX gives the quantity of exports of chemical and mechanical pulp and the proportion of exports of each to total production for the period 1908 to 1946.

In 1938, the last full peace year, exports of wood-pulp totalled 554,037 tons valued at $27,730,738. From the beginning of World War II, the exportation of wood-pulp increased steadily to new heights, especially the various grades of chemical pulp, which reached 1,259,670 tons and a valuation of $89,486,869 in 1943. In 1946 total pulp exports amounted to 1,418,558 tons valued at $114,020,659 comprising 460,503 tons of bleached sulphite, 446,209 tons of unbleached sulphite, 204,769 tons of sulphate pulp, 268,290 tons of groundwood, 19,667 tons of soda and other pulp and 19,120 tons of screenings. In that year 88·3 per cent of the tonnage exported went to the United States,

TABLE VIII

CANADIAN PRODUCTION OF WOOD-PULP, 1908-1946

Year	*Total production*[1]		*Mechanical pulp*[2]		*Chemical pulp*[3]	
	Tons	$	*Tons*	$	*Tons*	$
Average 1908-12	492,511	Not	367,184	Not	125,327	Not
„ 1913-17	1,124,904	available	747,981	available	376,892	available
„ 1918-22	1,786,543	88,503,038	1,026,654	31,142,634	752,280	56,969,200
„ 1923-27	2,844,438	103,842,061	1,658,528	40,371,693	1,122,615	62,473,489
„ 1928-32	3,415,965	102,353,300	2,108,821	42,519,879	1,231,852	58,968,174
„ 1933-37	4,022,237	85,725,851	2,637,310	34,773,968	1,384,927	50,951,883
1938	3,667,789	87,897,148	2,520,738	39,707,479	1,147,051	48,189,669
1939	4,166,301	97,131,817	2,796,093	43,530,367	1,370,208	53,601,450
1940	5,290,762	149,005,267	3,368,209	56,017,547	1,922,553	92,987,720
1941	5,720,847	175,439,551	3,550,285	61,749,788	2,170,562	113,689,763
1942	5,606,461	192,145,062	3,308,118	65,208,869	2,298,343	126,936,193
1943	5,272,830	194,434,202	3,033,751	63,694,822	2,239,079	130,739,380
1944	5,271,137	211,041,412	3,113,142	72,097,231	2,157,995	138,944,181
1945	5,600,814	231,873,122	3,380,873	86,723,425	2,219,941	145,149,697
1946	6,615,410	287,624,227	4,122,046	113,599,526	2,493,364	174,024,701

[1] These totals include some unspecified pulp until 1932. [2] Includes mechanical screenings. [3] Includes chemical screenings.

8·5 per cent to the United Kingdom and 3·2 per cent to other countries.

Wood-pulp importation into Canada is relatively unimportant, the total value of these imports forming 1·1 per cent of the value of the exports in 1946. Since 1937 all Canadian imports of wood-pulp have come from the United States.

Data compiled by the United States Pulp Producers Association on world production, imports and exports of wood-pulp of all grades for the year 1946 showed that Canada was second only to the United States as a producer and consumer of this commodity and as an exporter was a close competitor of Sweden for second place, with Finland in third position.

TABLE IX

EXPORTS OF WOOD-PULP, 1908-1946

Year	*Total pulp*[1]		*Mechanical pulp*		*Chemical pulp*	
	—	*Per cent of production*	—	*Per cent of production*	—	*Per cent of production*
	Tons		*Tons*		*Tons*	
Average 1908-12 ..	291,428	59·2	249,272	67·9	42,170	33·6
„ 1913-17 ..	431,605	38·4	266,325	35·6	165,260	43·8
„ 1918-22 ..	691,701	38·7	267,044	26·0	424,657	56·4
„ 1923-27 ..	900,728	31·7	319,584	19·3	576,925	51·4
„ 1928-32 ..	705,940	20·7	180,617	8·6	502,756	40·8
„ 1933-37 ..	700,368	17·4	135,330	5·1	545,895	39·4
1938..	554,037	15·1	124,205	4·9	421,597	36·7
1939..	705,516	16·9	168,652	6·0	526,774	38·4
1940..	1,068,517	20·2	204,090	5·7	857,193	44·6
1941..	1,411,724	24·7	271,161	7·6	1,121,784	56·1
1942..	1,510,746	26·9	278,364	8·4	1,213,587	52·8
1943..	1,556,457	29·5	272,900	9·0	1,259,670	56·3
1944..	1,408,081	26·7	236,545	7·7	1,156,442	54·8
1945..	1,434,527	25·6	273,906	8·2	1,145,660	52·9
1946..	1,418,558	21·4	268,290	6·7	1,131,148	46·6

[1] These totals include some unspecified pulp, consisting chiefly of mechanical and chemical screenings.

Paper.—The production of paper in Canada dates from 1803, but very little information is available concerning this industry until the beginning of the present century. On the basis of census figures, the production of paper does not appear to have exceeded 10,000 tons in 1871 but may have reached about 25,000 tons by 1881. At the close of the nineteenth century, however, the production of paper and "cardboard"—as paperboard was then called—appears to have been approximately 100,000 tons.

By 1917, when accurate statistics were compiled for the first time, paper of all kinds totalled 855,754 tons valued at $59,250,058. The volume of paper produced increased gradually to reach the record figures of 5,347,118 tons and $396,956,390 in 1946. Table X gives a review of paper production, by kinds, for the calendar years 1917 to 1946.

During the fiscal year 1890 Canada's total exports of all classes of paper and paper products were valued at only $122. Ten years later they amounted to $29,741. For the fiscal year 1908 printing paper was for the first time separately reported among Canada's paper exports and was valued at $2,833,535. This was largely newsprint paper. In 1910 the exportation of newsprint paper alone had reached a valuation of $2,612,243. When quantities were first recorded, in 1913, Canada exported 256,661 ton of this paper valued at $9,980,378. Table XI summarises paper exportation from Canada for the calendar years 1917 to 1944. Owing to the absence of quantity figures for many items and the use of different units of measurement, no total quantity figures are available. For newsprint, however, both quantity and total value are given.

In 1944, the United States, which has consistently been Canada's biggest customer for this product, took 85·9 per cent of this country's total exports of newsprint paper. British Empire countries purchased 7·2 per cent, most of this going to Australia and the United Kingdom. Other countries received the remainder, or 6·9 per cent.

TABLE X

CANADIAN PAPER PRODUCTION, BY KINDS, 1917-46

Year	*Newsprint Paper*		*Book and Writing Paper*		*Wrapping Paper*	
	Tons	$	*Tons*	$	*Tons*	$
1917	689,847	38,868,084	48,279	9,332,998	52,287	5,891,898
Average 1918-22	858,305	67,255,978	59,582	14,056,727	66,572	8,467,229
„ 1923-27	1,629,637	110,622,112	74,984	13,403,072	93,107	8,396,884
„ 1928-32	2,356,787	125,617,632	67,694	11,749,739	85,514	8,359,921
„ 1933-37	2,858,331	94,769,252	71,026	10,507,317	86,945	8,227,696
1938	2,668,913	107,051,202	73,834	11,098,901	90,879	9,069,298
1939	2,926,597	120,858,583	90,135	12,773,781	109,907	10,712,394
1940	3,503,801	158,447,311	102,696	15,518,667	139,716	14,457,299
1941	3,519,733	158,925,310	117,444	18,476,397	162,581	16,744,806
1942	3,257,180	147,074,109	121,419	19,181,665	165,991	17,221,769
1943	3,046,442	154,290,163	122,174	19,047,039	145,545	15,614,453
1944	3,039,783	165,655,165	153,851	23,590,904	156,721	16,699,663
1945	3,324,033	189,023,736	162,198	24,468,409	162,175	17,558,552
1946	4,162,158	280,809,610	189,318	29,995,156	175,369	20,797,070

Year	*Paperboard*		*Tissue and Miscellaneous Paper*		*Total Paper*	
	Tons	$	*Tons*	$	*Tons*	$
1917	54,080	3,543,164	11,261	1,613,914	855,754	59,250,058
Average 1918-22	117,158	8,114,829	30,117	3,247,870	1,131,734	101,142,633
„ 1923-27	145,489	8,579,841	42,300	4,573,593	1,985,517	145,575,502
„ 1928-32	217,826	11,247,289	47,204	4,646,128	2,775,025	161,620,709
„ 1933-37	322,850	15,650,598	45,228	3,960,105	3,384,380	133,114,968
1938	356,891	19,288,172	58,841	5,142,492	3,249,358	151,650,065
1939	413,687	21,359,828	60,176	5,071,476	3,600,502	170,776,062
1940	500,094	31,078,759	73,107	6,334,773	4,319,414	225,836,809
1941	649,840	40,214,658	75,178	7,089,121	4,524,776	241,450,292
1942	609,175	38,641,867	78,002	8,150,102	4,231,767	230,269,512
1943	568,101	37,527,768	84,082	8,883,535	3,966,344	235,362,958
1944	588,348	39,091,667	105,673	10,508,442	4,044,376	255,545,841
1945	595,131	40,100,872	116,039	11,686,045	4,359,576	282,837,614
1946	683,643	50,213,833	136,630	15,140,721	5,347,118	396,956,390

Canada occupies first place by a very wide margin among the world's principal producers and exporters of newsprint paper. Before the war Canada's chief competitors were Finland, Newfoundland, Sweden, Norway and Germany, in the order named. In 1938 the quantity of newsprint exported by the principal newsprint-producing countries was 3,806,737 short tons, of which Canada contributed 63·7 per cent. World comparisons for later years are not available.

Table XII shows exports of paper other than newsprint for the years 1938 and 1946. Because of changes in the export classification comparisons for earlier years cannot be made.

The importation of paper is relatively unimportant in comparison with exports but is far from being an inconsiderable item. It amounted to $18,834,089 in 1946, forming about 6·6 per cent of the value of the exports of paper in that year. The United States provided practically all such imports, which consist chiefly of paper, paperboard or paper goods which have been subjected to some special process to fit them for a special purpose, or of finished products manufactured from paper or paperboard.

Almost every class of paper or paper goods at present imported into Canada is being made in this country or could be made with comparatively little change in the equipment existing in our paper-mills and the plants of our paper-using industries, providing there were sufficient demand to warrant such manufacture.

Canada possesses abundant supplies of the wood on which the pulp and paper industry depends. This country's position in the matter of hydro-electric power, which is also essential for the success of this industry, is just as favourable. For the immediate post-war period, Canada's problem would appear to be not one of demand but one

TABLE XI

SUMMARY OF PAPER EXPORTS, 1917 TO 1946

Year	All Paper	Newsprint			
		Quantity	*Value*	*Ratio to all Paper Exports (value)*	*Ratio to Production (volume)*
	$	*Tons*	$	*Per cent*	*Per cent*
1917	35,774,636	596,187	32,561,020	91·0	86·4
1918	43,661,461	636,533	37,301,269	85·4	86·6
1919	59,391,655	708,429	49,811,362	83·9	89·2
1920	86,474,010	761,944	72,920,225	84·3	87·0
1921	75,510,945	709,241	69,786,317	92·4	88·1
1922	74,825,893	959,514	68,362,817	91·4	88·7
1923	93,770,957	1,137,962	85,611,258	91·3	90·9
1924	99,248,497	1,219,384	90,990,711	91·7	87·8
1925	106,624,046	1,401,655	98,945,337	92·8	91·2
1926	121,414,513	1,731,986	114,090,595	93·9	91·7
1927	129,637,687	1,881,865	123,222,094	95·1	90·4
1928	147,156,792	2,206,588	141,103,527	95·9	91·4
1929	154,919,122	2,515,495	148,865,648	96·1	92·3
1930	138,440,243	2,332,510	133,370,932	96·3	93·4
1931	111,114,042	2,008,240	107,233,112	96·5	90·2
1932	86,323,539	1,776,764	82,966,169	96·1	92·6
1933	72,396,132	1,838,105	69,200,515	95·6	90·9
1934	87,208,721	2,414,274	82,503,659	94·6	92·7
1935	94,041,591	2,574,987	87,924,251	93·5	93·1
1936	110,861,428	2,993,089	103,639,634	93·5	92·8
1937	136,164,168	3,455,239	126,466,412	92·9	94·1
1938	112,872,776	2,424,655	104,615,042	92·7	90·8
1939	124,127,164	2,658,723	115,687,288	93·2	90·8
1940	170,879,526	3,242,789	151,360,196	88·6	92·6
1941	176,184,025	3,262,012	154,356,543	87·6	92·7
1942	157,838,084	3,005,291	141,065,618	89·4	92·3
1943	160,825,462	2,810,288	144,707,065	90·0	92·2
1944	177,290,282	2,805,776	157,190,834	88·7	92·3
1945	203,011,992	3,058,946	179,450,771	88·4	92·0
1946	287,437,805	3,858,467	265,864,969	92·5	92·7

of supply. Preliminary figures on the production of pulp in 1947 and for the first five months of 1948 indicate increases of 9 per cent over 1946 and of 5 per cent over 1947, and several new mills are expected to be in production soon. Newsprint production appears also to have increased in 1947 by about 7 per cent over 1946, and in the first five months of 1948 by 2 per cent over 1947.

Manufactures of Wood and Paper

Sawmills and pulp-mills draw their raw material directly from the forest in the form of logs and pulpwood, and produce sawn lumber, other sawmill products and pulp and paper. Plants engaged in wood distillation and charcoal burning or in the production of excelsior (wood wool) and of veneers and plywoods also manufacture the finished products directly from logs or bolts.

There are, however, a number of important industries that use lumber, pulp and paper products as raw material for further manufacture. Some of them produce commodities made almost entirely of wood, wood-pulp or paper, others manufacture articles in which wood is the most important component, and others produce articles in which wood is necessary but forms only a small proportion of the value. Many other industries use wood indirectly in the manufacture of articles that do not contain wood as a component part. In 1946, the wood and paper group of industries, comprising the lumber and pulp and paper industries and industries in which wood, pulp or paper is the chief component material, but excluding operations in the woods, furnished 224,121 man-years of employment in 11,994 establishments. Salaries and wages amounted to $366,049,562 and the gross value of products was $1,484,436,122 or 18·4 per cent of the total value of manufactured products. The net value or value added by manufacture was $749,055,011.

The forests of Canada contribute substantially to her export trade values. During the calendar year 1946, exports of wood and paper products (including unmanufactured forest products) amounted to $625,591,155 and made up 27 per cent of the total value of Canadian exports for the period, amounting to $2,312,215,301. Wood and paper products are prominent among the individual items of export.

TABLE XII

EXPORTS OF PAPER OTHER THAN NEWSPRINT, 1938 AND 1946

Kinds	1938	1946
	$	$
Paperboards	3,318,378	7,185,825
Wrapping paper, kraft ..	756,130	2,148,284
Newsprint paper, mutilated or beater stock	397,858	840,254
Book paper	491,834	3,580,946
Pulp and fibre wallboards ..	1,248,272	1,234,205
Wrapping paper, n.o.p. ..	520,897	941,112
Bags, boxes and cartons of paper	190,542	819,430
Bond and writing paper ..	135,261	—
Hangings or wall paper ..	198,831	757,229
Waste paper, n.o.p.	77,299	264,338
Roofing and building paper (except asbestos roofing) ..	120,460	330,205
Paper and manufactures of paper, n.o.p.	801,972	1,285,535
Bond and writing paper, uncut[1]	—	1,410,794
Writing paper, n.o.p., and envelopes[2]	—	378,821
Tissue paper[2]	—	87,666
Toilet paper[2]	—	308,192

[1] New item 1944. [2] With " Paper and manufactures paper, n.o.p." prior to 1944.

CONSTRUCTION IN CANADA

THE purpose of this article is to co-ordinate such official statistics on the construction industry as are available and to give, so far as possible, a complete picture of construction in Canada. Official statistics, although constantly undergoing improvements, have many gaps and it is necessary to try to bridge these by presenting data from outside sources. It is usually some time after contracts are awarded that work actually starts, and in the case of contracts of large-scale undertakings, the work is seldom finished within one year.

THE GOVERNMENT AND THE CONSTRUCTION INDUSTRY

Public Contracts

Since the establishment of the Department of Reconstruction and Supply in January, 1946, Government reconstruction programme, so far as they concern construction projects, are determined as to urgency and put into execution in order of importance. Also, each project is scored as to whether the available labour and materials required might be deterring any more necessary housing construction. Close liaison is carried on between the Department of Reconstruction and Supply and the Department of Public Works.

Government Aid to Civil Housing

Canada's supply of adequate housing falls far short of actual needs. While this condition undoubtedly existed prior to the 1930's, it was not widely recognised. With the general depression of economic activity through the period 1929-36, residential construction fell to such a low level that already-existing overcrowding and obsolescence were further aggravated. The high vacancy rate in the depression years, particularly for apartment dwellings, was a product not of an over-supply of dwellings, but of enforced " doubling-up " of families whose incomes were not sufficient to provide separate living quarters.

The construction industry had not recovered from the slump of the early 1930's when war production began to drain off materials and labour required for housing construction. At the same time, increased personal income allowed many families to expand into separate or larger dwelling units. These two factors, coupled with unprecedented marriage rates during the war years and the months immediately following, compounded an already critical shortage of living quarters throughout the Dominion.

The Central Mortgage and Housing Corporation.—To provide co-ordination in the housing field, the Central Mortage and Housing Corporation was incorporated by an Act of the Twentieth Parliament (December, 1945). Briefly, its purpose and functions are: (1) to administer

HOUSES COMPLETED BY WARTIME HOUSING LIMITED, 1944-46

Location	1944	1945	1946
Nova Scotia—	*No.*	*No.*	*No.*
Halifax	109	54	75
Liverpool	50	Nil	Nil
New Brunswick—			
Moncton	Nil	Nil	80
Saint John	54	46	152
Quebec—			
Arvida	300	Nil	Nil
Hull	Nil	125	150
Montreal	„	35	743
Longueuil	„	Nil	4
Pointe-aux-Trembles	„	„	25
Sherbrooke	„	„	75
Ontario—			
Brampton	Nil	Nil	5
Brantford	19	81	101
Chalk River	Nil	130	95
Cobourg	„	Nil	6
Cornwall	„	„	60
Elmira	„	„	22
Fort William	„	„	100
Geraldton	„	„	25
Guelph	„	„	27
Hamilton	32	189	Nil
Kingston	1	Nil	„
Lindsay	Nil	„	50
Listowel	„	„	7
London	„	70	103
Long Branch	„	Nil	25
Niagara Falls	„	„	64
North Bay	„	„	22
Orillia	21	„	Nil
Oshawa	7	68	„
Ottawa	Nil	Nil	309
Owen Sound	„	„	50
Peterborough	„	„	100
Port Arthur	„	„	100
Port Hope	„	„	19
Preston	„	„	50
Ontario—*cont.*	*No.*	*No.*	*No.*
St. Catharines	Nil	Nil	85
Renfrew	„	„	56
St. Marys	„	„	35
Sarina	149	50	150
Sault Ste. Marie	Nil	Nil	100
Smiths Falls	„	„	56
Stratford	„	„	4
Timmins	„	„	45
Toronto	35	247	568
Windsor	23	227	18
Manitoba—			
Fort Garry	Nil	Nil	25
St. Boniface	„	„	100
St. James	„	„	50
Transcona	„	„	50
Winnipeg	„	42	574
Saskatchewan—			
Moose Jaw	Nil	50	100
Prince Albert	„	Nil	50
Regina	„	24	221
Saskatoon	„	63	155
Sutherland	„	Nil	30
Yorkton	„	„	29
Alberta—			
Calgary	Nil	Nil	188
Edmonton	343	95	201
Lethbridge	Nil	Nil	50
British Columbia—			
Esquimalt (Twp.)	100	Nil	Nil
Kamloops	Nil	„	100
Penticton	„	„	100
Kelowna	„	„	100
Prince Rupert	20	„	Nil
Sea Island (Twp.)	304	25	„
Vancouver	Nil	100	904
Victoria	50	Nil	123
Totals	1,617	1,721	6,911

the National Housing Act, 1944, and earlier housing legislation; (2) to provide facilities for the rediscounting of mortgages by lending institutions; and (3) to administer the Emergency Shelter Regulations.

As a result of further consolidation of the Dominion Government's operations in the housing field, the Central Mortgage and Housing Corporation also directs the activities of Wartime Housing Limited.

Wartime Housing Limited.—Wartime Housing Limited, a Crown Company, was formed on Feb. 28, 1941. By the end of 1946, more than 25,000 houses had been built across Canada by the Company, exclusive of the many auxiliary buildings such as hospitals, schools, community centres and fire-halls.

Originally created to provide accommodation for war workers and their families near industrial developments essential to the prosecution of the War, the Company now constructs homes for veterans on a rental basis. All homes built since 1944 and those vacated by war-workers are rented to veterans. By the end of 1946, 51 per cent of all such units were occupied by ex-service men and their families.

The municipality co-operates with the Dominion Government in providing shelter for veterans, supplying a fully developed lot for building purposes to the Company for $1. The Company agrees to pay, in lieu of taxes, $24 per annum for each house of two or fewer bedrooms, and $30 per year on those with three or more bedrooms, plus $1 per year per house for street lighting. Rentals are from $22 to $40 per month. At the end of an agreed period, determined by cost of construction, Wartime Housing agrees to sell the houses to the municipality for $1,000 each.

At present, many requests are being received from individuals for permission to purchase these houses, and consideration is being given to these inquiries. Conditions must be agreed upon by the municipality and the Dominion Government.

Housing Legislation.—The Dominion Government, since 1935, has administered legislation designed to assist in the financing and improvement of housing in Canada. The Dominion Housing Act of 1935 was the first general housing Act proclaimed. Some of the loans made to house builders under the provisions of this Act are outstanding, but otherwise it is now inoperative.

In 1938, to encourage the builders of new homes by means of provision of long-term housing loans, the first of the National Housing Acts was made law.

The present legislation is the National Housing Act, 1944, which came in force on Jan. 18, 1945. Details of this Act are given below. The following table shows the number of loans made, and the amounts approved under the housing legislation passed since 1935.

NUMBERS AND AMOUNTS OF LOANS APPROVED UNDER DOMINION HOUSING LEGISLATION, BY PROVINCES, 1935-47

Province	LOANS								
	1935-40	1941	1942	1943	1944	1945	1946	1947	*Total*
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
Prince Edward Island	18	Nil	Nil	Nil	Nil	Nil	4	10	32
Nova Scotia	656	72	14	4	6	59	100	248	1,159
New Brunswick	190	25	7	Nil	Nil	23	84	102	431
Quebec	1,798	425	91	246	–19	462	832	1,793	5,628
Ontario	8,016	2,458	686	1,170	772	2,067	3,253	3,442	21,864
Manitoba	851	602	61	164	218	634	1,004	1,188	4,722
Saskatchewan	61	22	1	Nil	18	94	215	146	557
Alberta	Nil	Nil	Nil	Nil	Nil	469	626	916	2,011
British Columbia	2,862	1,089	147	136	398	625	1,222	1,041	7,520
TOTALS	14,452	4,693	1,007	1,720	1,393	4,433	7,340	8,886	43,924
	AMOUNTS								
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Prince Edward Island	97	Nil	Nil	Nil	Nil	Nil	21	170	288
Nova Scotia	2,745	248	49	13	20	266	532	1,364	5,237
New Brunswick	841	90	23	Nil	Nil	101	1,001	562	2,618
Quebec	14,180	1,428	328	816	–4	2,992	8,964	14,422	43,126
Ontario	34,275	7,568	2,017	3,696	2,718	10,254	26,163	19,116	105,807
Manitoba	3,810	1,994	188	516	778	3,030	5,017	6,577	21,910
Saskatchewan	334	79	4	Nil	62	403	1,771	735	3,388
Alberta	Nil	Nil	Nil	Nil	Nil	2,099	4,028	4,960	11,087
British Columbia	9,588	3,266	421	411	1,280	3,119	8,449	5,325	31,859
TOTALS	65,870	14,673	3,030	5,452	4,854	22,264	55,946	53,231	225,320

National Housing Act, 1944.—In 1946 amendments were introduced to certain portions of the Act to encourage farm housing, and to put in force the Home Extension Loan Plan (Part IV, NHA, 1944). The Act was amended also, to correspond with the administrative changes involved in the transfer to the Minister of Reconstruction and Supply of the duties, powers and functions of the Minister of Finance, under the National Housing Act, 1944, except the authority of the Minister to pay moneys out of the consolidated revenue fund or to make grants for slum clearance.

Operations carried on under the provision of the 1944 Act over the period Jan. 18, 1945 to Dec. 31, 1946, are summarised as follows: number of loans made, 7,313; number of family housing units assisted, 11,763; amount of loans approved, $55,585,540; average amount of loan, $4,725.

An outline of present status of the Act, operations carried out under it and of related legislation (Emergency Shelter) is given below.

Loans to Prospective Home Owners.—While the essential features of the joint loan conditions have been retained, certain changes were introduced to offset increases in construction costs and to ease the burden of families who have been forced to buy homes. Lending values were increased to approximate current building costs, and the usual period of amortisation was increased from 20 to 25 years, the 30-year maximum being retained in special cases. The maximum loan now available is $7,000 with a required equity of $1,300. On loans up to this maximum, lending value is calculated as 90 per cent of the first $4,000, plus, 70 per cent of any excess over $4,000 value.

Integrated Housing Plan.—The purpose of the Integrated Housing Plan is to encourage residential construction by providing financial assistance and building material priorities to builders. Conditions of the Plan include: (*a*) a maximum, pre-determined sales price; (*b*) priorities assistance to the builder in minimum quantity of building materials; (*c*) agreement of builder to have each house roofed within 4 months of starting dates; (*d*) guarantee by the Central Mortgage and Housing Corporation to purchase unsold houses within six months of date of completion; (*e*) restriction of sale to veterans (1939-45).

Home Conversion Plan.—Another measure designed to provide additional housing units with minimum delay was the Home Conversion Plan, established by a series of Orders in Council of which the first was P.C. 2641 of Apr. 1, 1943, giving the Government authority to lease buildings in certain cities for conversion into multiple housing units and to sublet them to suitable tenants. By Dec. 31, 1946, 2,108 new housing units had been provided from 260 conversion projects in 16 Canadian cities.

With the shortage of building materials, high costs, and lack of dwellings suitable for conversion, further developments of this Plan will not be pressed by Central Mortgage and Housing Corporation.

Housing Enterprises of Canada Limited.—Amendments to the National Housing Act in 1945 made it possible for the major lending institutions to form companies for the purpose of constructing housing projects for rental purposes. Agreements between Housing Enterprises of Canada and the Central Mortgage and Housing Corporation provide that all low-rental housing projects financed under the National Housing Act be approved by the Corporation as to location, costs, rental charges, etc. The Company is required to invest 10 per cent of the cost of the project, while the remaining 90 per cent is financed by the Central Mortgage and Housing Corporation through a mortgage loan with interest at 3 per cent.

By Dec. 31, 1946, Housing Enterprises of Canada and its subsidiary companies had 2,811 housing units under construction, but no dwellings had been completed.

Loans to Primary Producers for Housing of Employees.—To assure satisfactory living quarters for employees engaged in the production of primary goods in outlying areas, the National Housing Act provides that assistance be given to primary producers in the construction of housing projects. An incorporated company engaged in mining, lumbering, logging or fishing may borrow up to 80 per cent of the lending value of the project, with interest at 4 per cent. The amortisation period varies with the location but must not exceed 15 years.

The Act requires that basic family accommodation be provided by the company, with available community facilities. These projects must be of a size to assure economy in construction and operation.

Farm Housing.—In 1946, Part III of the National Housing Act dealing with rural housing was amended, enabling the Corporation to proceed with organisation of procedures for its administration.

Joint loans may be made to assist in the construction of houses on farms. Where the farm is not mortgaged or is without other encumbrance, the amount of the loan is limited to the least of $5,000, the cost of building the house, or two-thirds of the appraised value of the farm. If there is already a mortgage or other encumbrance, the loan is the least of $8,000, the sum of the cost of building the house and existing indebtedness or two-thirds of the appraised value of the farm. In this second instance it must be shown that the mortgage was not secured to increase the amount of the new loan.

Loans for farm housing carry interest at 4·5 per cent per annum, and are repayable up to 20 years after the date of completion of the house. Such dwellings must conform to standards approved by the Central Mortgage and Housing Corporation.

Home Extension Loans.—This portion of the Act is intended to assist home owners in creating additional dwelling units within their homes. The loans are not intended for improvement of already existing dwellings unless the changes are a part of the conversion plan.

By Dec. 31, 1946, 25 Home Extension Loans, creating 53 housing units for a total sum of $76,315 had been approved. The loans may be made through any chartered bank or approved instalment credit agency, under arrangement with Central Mortgage and Housing Corporation.

Emergency Shelter Regulations.—This legislation is intended to assist municipalities in converting unoccupied houses, barracks or other suitable buildings for the accommodation of families suffering actual distress or hardship through lack of shelter. In December, 1945 (P.C. 7502), administration of these Regulations was changed from the Wartime Prices and Trade Board to the Central Mortgage and Housing Corporation.

Briefly, the functions of the Emergency Shelter Administration are: to help municipalities procure surplus Government buildings for conversion purposes, to assure that all vacant houses are occupied, to maintain liaison with veteran and social-welfare agencies and to assist universities to provide living accommodation for married veteran students.

By the end of 1946, the Dominion Government had expended more than $2,000,000 for Emergency Shelter of which about $725,000 was for the housing of married student veterans. More than 7,000 dwelling units were in operation at that time, in leased quarters valued at nearly $6,000,000.

Housing Research and Community Planning.—Provision for research and community planning is made in Part V of the National Housing Act, 1944, and for enquiries into problems of mortgage transactions of the Central Mortgage and Housing Corporation.

There are three main branches of research carried on: economic and statistical enquiries: technical research in materials, equipment, standards, etc., of housing; and design of housing. Competitions in housing design have been set up across the Dominion.

Veterans' Land Act

Under the terms of the Veterans' Land Act a programme of construction of homes on small holdings outside urban areas was set up. This project remains a responsibility of the Minister of Veterans Affairs.

Farm Improvement Loans Act

One of the broad aims behind this legislation is the improvement of living conditions on farms, by the provision, of electrification, refrigeration, heating systems, water systems, etc.

THE ANNUAL SURVEY OF DWELLING UNITS CONSTRUCTED

The survey of dwelling units and new residential buildings completed in Canada, was commenced by the Bureau of Statistics in 1945, and continued during 1946 and 1947. The basic data for this survey was obtained from 623 incorporated municipalities, while provincial authorities and agencies of the Dominion Government also provided similar information for unorganised areas of the provinces, the Northwest Territories and Yukon. This group of municipalities includes all those in the 12 metropolitan areas, others having a population of 5,000 or over, and a further selected number chosen on the basis of scientific sampling technique, that is, a " random " sample of approximately 10 per cent and 5 per cent, respectively, of other urban and other rural municipalities having a population under 5,000. The 623 municipalities represent 16·2 per cent of the total number of incorporated municipalities in Canada, or approximately 67 per cent of the total population in these areas.

The result of this survey during the calendar years 1946 and 1947, compared with similar statistics for 1945, is summarised in the tables below and on page 330.

The largest number of dwelling units completed in 1946 were single dwellings and 67·3 per cent of all new residential construction were buildings of wood frame with wood siding and shingles construction; those of wood frame with stucco on lath construction ranked second. A comparison of the total number of dwelling units, exclusive of conversions, with the total number of new buildings, shows that there was an average of 1·10 units per building for 1946, compared to 1·15 for 1945; this is accounted for by the larger proportion of single dwellings built in 1946, as compared with the previous year.

The results of new building construction during 1946 and 1947 indicate that the weight of new residential construction is taking place in urban centres other than metropolitan areas. While new dwelling unit completions in metropolitan areas increased by over 14 per cent in 1946 as compared with 1945, these represented only 32·1 per cent of the total for 1946, as against 36·8 per cent of total 1945 completions. Completions in other urban areas, however, reflect a marked change in both respects, these

NEW DWELLING UNITS, BY TYPE OF BUILDING, COMPLETED IN 1945, 1946 AND 1947

Type of Building	1945	1946	1947	1945	1946	1947
	No.	*No.*	*No.*	%	%	%
Single	33,513	50,457	58,282	69·0	74·9	76·0
Semi-detached or double	1,800	2,458	2,372	3·7	3·6	3·1
Row or terrace ..	235	510	606	0·5	0·8	0·8
Duplex	1,894	1,748	2,938	3·9	2·6	3·8
Triplex	1,044	690	1,017	2·1	1·0	1·3
Apartment or flat ..	2,965	2,208	3,392	6·1	3·3	4·4
Business premises with an apartment or flat ..	971	2,493	2,728	2·0	3·7	3·6
Other and unclassified..	195	11	81	0·4	0·1	0·1
Conversions	5,982	6,740	5,322	12·3	10·0	6·9
TOTALS ..	48,599	67,315	76,738	100·0	100·0	100·0

NEW DWELLING UNITS, BY AREAS OR REGIONS, COMPLETED IN 1945, 1946 AND 1947

Area or Region	*New Construction*			*Conversions*			*Total New Dwelling Units*		
	1945	1946	1947	1945	1946	1947	1945	1946	1947
	No.	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*	*No.*
MUNICIPALITIES—									
Metropolitan areas	15,585	19,702	22,847	2,280	3,095	2,332	17,865	22,797	25,179
Other urban	13,563	23,256	28,873	3,127	2,758	2,422	16,690	26,014	31,295
Other rural	11,844	14,818	17,518	534	836	494	12,378	15,654	18,012
TOTALS, MUNICIPALITIES ..	40,992	57,776	69,238	5,941	6,689	5,248	46,933	64,465	74,486
UNORGANISED AREAS	1,501	2,683	2,050	36	46	74	1,537	2,729	2,124
TOTALS, PROVINCES ..	42,493	60,459	71,288	5,977	6,735	5,322	48,470	67,194	76,610
YUKON AND N.W.T.	124	116	128	5	5	—	129	121	128
CANADA ..	42,617	60,575	71,416	5,982	6,740	5,322	48,599	67,315	76,738

having increased in 1946 by over 49 per cent of the 1945 total, and represented 39·2 per cent of total completions in 1946, as compared with 34·3 per cent of the 1945 total.

NEW RESIDENTIAL BUILDINGS, BY TYPE OF CONSTRUCTION, COMPLETED 1945-47

Type of Construction	1945	1946	1947	1945	1946	1947
	No.	*No.*	*No.*	%	%	%
Wood frame with wood siding	23,857	37,510	40,882	64·3	68·3	63·9
Wood frame with brick veneer	4,011	4,807	6,533	10·8	8·8	10·2
Wood frame with stucco ..	4,387	6,559	9,011	11·8	11·9	14·1
Cinder or cement blocks with stucco	731	1,629	2,992	2·0	3·0	4·7
Solid brick	1,797	1,891	2,509	4·8	3·4	3·9
Solid masonry: brick facing	1,108	1,427	1,006	3·0	2·6	1·6
Solid masonry: stone facing	129	167	270	0·4	0·3	0·4
Other and unclassified ..	1,092	947	780	2·9	1·7	1·2
TOTALS ..	37,112	54,937	63,983	100·0	100·0	100·0

DWELLING UNITS UNCOMPLETED ON DEC. 31, 1947, BY TYPE OF DWELLING, BY PROVINCES

	Total	*1-Family Detached*	*2-Family Detached*	*Row or Terrace*	*Apartment or Flat*	*Other*
	No.	*No.*	*No.*	*No.*	*No.*	*No.*
Prince Edward Island ..	209	189	—	—	20	—
Nova Scotia	2,161	2,016	—	—	145	—
New Brunswick ..	736	667	14	—	54	1
Quebec	9,076	3,639	1,226	776	3,390	45
Ontario	17,243	15,710	150	12	1,359	12
Manitoba	2,315	2,109	38	—	168	—
Saskatchewan	1,469	1,458	—	—	11	—
Alberta	2,310	2,086	26	—	198	—
British Columbia ..	6,696	6,278	46	3	368	1
TOTALS, CANADA ..	42,215	34,152	1,500	791	5,713	59

NEW DWELLING UNITS IN METROPOLITAN AREAS, COMPLETED IN 1945, 1946 AND 1947

Metropolitan Area	1945[1]	1946[1]	1947[1]	1945	1946	1947
	No.	*No.*	*No.*	%	%	%
Halifax, N.S.	189	935	322	0·4	1·4	0·4
Saint John, N.B. ..	163	413	498	0·3	0·6	0·7
Quebec, Que.	1,054	1,179	945	2·2	1·8	1·2
Montreal, Que.	4,788	3,956	6,146	9·9	5·9	8·0
Ottawa, Ont.	1,497	1,608	1,418	3·1	2·4	1·8
Toronto, Ont.	3,533	4,447	4,018	7·3	6·6	5·2
Hamilton, Ont.	613	689	1,087	1·3	1·0	1·4
London, Ont.	446	852	978	0·9	1·3	1·3
Windsor, Ont.	747	814	876	1·5	1·2	1·1
Winnipeg, Man.	1,310	2,417	3,574	2·7	3·6	4·7
Vancouver, B.C.	2,875	4,523	4,271	5·9	6·7	5·6
Victoria, B.C.	650	964	1,046	1·3	1·4	1·4
TOTALS, METROPOLITAN AREAS	17,865	22,797	25,179	36·8	33·9	32·8
TOTALS, CANADA ..	48,599	67,315	76,738	100·0	100·0	100·0

[1] Includes conversions.

CONTRACTS AWARDED AND BUILDING PERMITS ISSUED

Construction Contracts

The figures published by MacLean Building Report Limited, for construction contracts awarded during 1946 showed a total of $663,355,100. This amount represented an increase of 62 per cent over the $409,032,700 reported for 1945 and exceeded the previous peak of $577,000,000 reached in 1929.

Every type of construction contributed to this increase. The value of residential building amounted to $213,050,500 or 32 per cent of the total value of all construction, an increase of 8·7 per cent over 1945. A great part of this construction was made up of single and multiple residences although the value of apartment construction was more than three times the amount of the previous year.

Industrial construction increased 83·1 per cent over 1945, engineering construction 144·6 per cent and business or commercial construction 116·5 per cent.

Regionally, Ontario accounted for the greatest volume with total awards of $252,787,400, or 38·1 per cent of the total, followed by Quebec with 34·2 per cent. The greatest percentage increases over 1945 were shown by New Brunswick and Quebec, amounting to 149 per cent and 86 per cent respectively.

VALUES OF CONSTRUCTION CONTRACTS AWARDED, 1912-47

(From MacLean Building Reports, Ltd.)

Year	*Value of Construction Contracts*	*Year*	*Value of Construction Contracts*
	$		$
1912 ..	463,083,000	1930 ..	456,999,600
1913 ..	384,157,000	1931 ..	315,482,000
1914 ..	241,952,000	1932 ..	132,872,400
1915 ..	83,916,000	1933 ..	97,289,800
1916 ..	99,311,000	1934 ..	125,811,500
1917 ..	84,841,000	1935 ..	160,305,000
1918 ..	99,842,000	1936 ..	162,588,000
1919 ..	190,028,000	1937 ..	224,056,700
1920 ..	255,605,000	1938 ..	187,277,900
1921 ..	240,133,300	1939 ..	187,178,500
1922 ..	331,843,800	1940 ..	346,009,800
1923 ..	314,254,300	1941 ..	393,991,300
1924 ..	276,261,100	1942 ..	281,594,100
1925 ..	297,973,000	1943 ..	206,103,900
1926 ..	372,947,900	1944 ..	291,961,800
1927 ..	418,951,600	1945 ..	409,032,700
1928 ..	472,032,600	1946 ..	663,355,100
1929 ..	576,651,800	1947 ..	718,137,100

Building Permits

Statistics of building permits were first collected in 1910. when the series covered 35 urban centres; in 1920 it was extended to cover 58 municipalities, including unincorporated suburban areas as, with the advent of the automobile, a growing percentage of persons working in cities were residing outside the municipal boundaries of the urban centres in which they earned their living. In 1940 the series was again extended to cover 204 municipalities.

Building permits issued in 1946 registered an increase of 94·5 per cent compared with 1945.

Employment in Construction

In the table below the employment figures, shown on a monthly basis, reflect the fact that the industry is not as decidedly seasonal as is sometimes thought. The month of highest employment in the industry as a whole, in 1946, was August with 195,793 wage-earners and the lowest was February with 112,176.

WAGE-EARNERS IN THE CONSTRUCTION INDUSTRY, BY MONTHS AND AGGREGATE ANNUAL WAGES PAID, 1946

Year and Month	*General and Trade Contractors and Subcontractors*	*Municipalities*	*Harbours Board*	*Provincial Government Departments*	*Dominion Government Departments*	*Total*
	No.	*No.*	*No.*	*No.*	*No.*	*No.*
1946						
January	97,853	7,438	426	5,113	3,260	114,090
February	97,034	7,324	438	3,937	3,443	112,176
March	103,685	8,066	492	5,928	3,837	122,008
April	115,619	9,950	506	7,090	3,158	136,323
May	135,185	11,874	548	13,068	3,385	164,060
June	147,058	12,876	561	15,496	3,730	179,721
July	154,928	13,437	629	18,037	4,247	191,278
August	158,117	13,341	612	19,273	4,450	195,793
September	154,465	12,435	597	19,880	4,476	191,853
October	155,159	12,141	616	20,573	4,567	193,056
November	146,464	10,929	513	18,446	4,085	180,437
December	129,675	8,947	411	12,216	3,321	154,570
MONTHLY AVERAGES ..	132,937	10,730	529	13,254	3,830	161,280
	$	$	$	$	$	$
Wages Paid During Year	232,792,135	16,061,265	874,434	17,148,634	6,738,374	273,614,842

AVERAGE WAGE-EARNERS EMPLOYED IN THE CONSTRUCTION INDUSTRY AND TOTAL WAGES PAID, BY PROVINCES, 1945 AND 1946

Province	1945		1946	
	Monthly Average of Daily Figures of Wage-Earners Employed	*Total Wages Paid During Year*	*Monthly Average of Daily Figures of Wage-Earners Employed*	*Total Wages Paid During Year*
	No.	$	*No.*	$
Prince Edward Island ..	332	539,030	430	619,252
Nova Scotia	11,805	11,535,549	10,989	15,121,053
New Brunswick	3,824	5,647,849	6,514	9,740,076
Quebec	33,904	52,260,775	45,067	73,087,392
Ontario	42,125	70,498,131	60,787	107,582,229
Manitoba	4,483	7,616,571	7,013	11,910,215
Saskatchewan	3,077	5,046,616	4,742	7,896,487
Alberta	5,360	8,792,709	7,685	13,678,462
British Columbia	10,974	19,758,171	18,053	33,979,676
TOTALS ..	115,884	181,695,401	161,280	273,614,842

The annual Census of Construction undertaken by the Dominion Bureau of Statistics covers all construction, maintenance and repair work undertaken by contractors, builders and public bodies (except the smaller municipalities) throughout Canada. It does not include maintenance and repair work on steam and electric railways, telegraph and telephone systems and the lesser public utilities when such work is done by the employees of these concerns in the ordinary way: nor can it include a substantial amount of construction in the aggregate done by farmers and other individuals who might be otherwise unemployed, performing work on their own structures. It is doubtful whether a great deal of the work of railways and utilities is construction in the sense understood in the Census: for instance, the routine "maintenance of way" expenditures, so far as they relate to inspection work, are not construction although, so far as they concern rebuilding of line for roadbed or structures, they might be said to fall in that category.

Statistics of Construction

A census of construction was made by the Dominion Bureau of Statistics for 1934, but the basis of compilation was not standardised until 1935 so that, with the completion of the 1946 figures, comparable statistics are now available covering the years 1935-46. Returns are received from general trade and subcontractors, municipalities, the Harbour Board, and Dominion and Provincial Government departments. The figures cover alterations, maintenance and repairs, as well as new construction. Summary statistics are given in the following tables.

No relationship exists between the total value of construction as shown in these tables, and the value of contracts awarded. In the latter case all values are included as soon as awards are made, irrespective of whether the contract is completed or even begun in that year, whereas, the following tables cover construction work carried on and actually performed in the calendar year.

The value of work performed by the construction industry in 1945 amounted to $543,579,833 as compared with $449,838,059 in the preceding year, an increase of 20·8 per cent.

The value of building construction increased from $220,299,940 in 1944 to $288,092,582 in 1945. The construction of industrial buildings increased from $71,131,759 to $82,800,022 while the construction of armouries, barracks, hangars, etc., was reduced from $15,001,136 to $6,445,275. On the other hand, the value of residential building advanced from $83,927,360 to $125,524,346, institutional from $21,005,720 to $30,449,556

PRINCIPAL STATISTICS OF THE CONSTRUCTION INDUSTRY, 1943-46

Item		1943	1944	1945	1946
Firms reporting	No.	12,600	16,121	19,025	23,793
Salaried employees	„	25,015	26,767	30,646	37,571
Salaries paid	$	43,726,277	44,285,139	52,296,053	71,278,215
Wage-earning employees (average)	No.	130,285	97,125	115,884	161,280
Wages paid	$	207,707,516	153,418,845	181,695,401	273,614,842
Total employees	No.	155,300	123,892	146,530	198,851
Salaries and wages paid	$	251,433,793	197,703,984	233,991,454	344,893,057
Cost of materials used	$	278,888,384	200,801,042	275,621,996	459,965,741
Value of work performed[1]	$	572,426,551	449,838,059	543,579,833	868,661,403
New construction[1]	$	*422,423,651*	*265,819,003*	*320,225,176*	*577,372,143*
Alterations, maintenance and repairs[1]	$	*150,002,900*	*184,019,056*	*223,354,657*	*291,289,260*
Subcontract work performed	$	97,800,007	74,214,349	92,817,170	143,980,517
New construction	$	*84,084,603*	*57,851,459*	*71,872,900*	*115,343,772*
Alterations, maintenance and repairs	$	*13,715,404*	*16,362,890*	*20,944,270*	*28,636,745*

[1] Includes subcontract work indicated in the lower part of the table.

PRINCIPAL STATISTICS OF THE CONSTRUCTION INDUSTRY, BY PROVINCES AND GROUPS, 1946

Province or Group	*Employees*	*Salaries and Wages*	*Cost of Materials*	VALUES OF WORK PERFORMED		
				New Construction	*Alterations and Repairs*	*Total*
	No.	$	$	$	$	$
PROVINCE :						
Prince Edward Island	541	833,789	1,415,018	1,664,349	717,271	2,381,620
Nova Scotia	12,577	18,118,652	19,104,088	22,894,469	17,963,850	40,858,319
New Brunswick	7,340	11,272,121	13,351,512	17,475,518	10,285,592	27,761,110
Quebec	53,892	90,661,720	124,253,737	157,186,288	68,396,000	225,582,288
Ontario	76,870	138,664,306	184,351,191	220,712,075	126,904,674	347,616,749
Manitoba	8,868	15,428,929	23,526,454	28,196,859	15,265,641	43,462,500
Saskatchewan	5,999	10,093,724	15,421,703	19,833,922	9,443,293	29,277,215
Alberta	10,207	18,068,674	26,402,440	37,478,408	14,094,988	51,573,396
British Columbia	22,557	41,751,142	52,139,598	71,930,255	28,217,951	100,148,206
TOTALS	198,851	344,893,057	459,965,741	577,372,143	291,289,260	868,661,403
GROUP :						
Contractors, builders, etc.	165,518	295,282,864	426,800,935	545,762,856	229,689,564	775,452,420
Municipalities	12,505	19,438,388	12,526,339	13,231,928	20,850,153	34,082,081
Harbour Commissions	660	1,139,705	532,777	173,022	1,624,165	1,797,187
Provincial Govt. Depts.	15,427	20,972,861	15,220,591	16,004,077	27,939,119	43,943,196
Federal Govt. Depts.	4,741	8,059,239	4,885,099	2,200,260	11,186,259	13,386,519
TOTALS	198,851	344,893,057	459,965,741	577,372,143	291,289,260	868,661,403

and commercial from $29,233,965 to $42,873,383. Construction work involving engineering, harbours, rivers, etc., increased from $153,123,802 in 1944, to $158,907,665 in 1945.

In the industry as a whole, employment was provided for a total of 146,530 persons in 1945, recording an increase of 22,638 over the total for the preceding year, while the aggregate of salaries and wages at $233,991,454 was $36,287,470 higher. The cost of materials used in 1945 was $275,621,996 an increase in expenditure for this purpose of $74,820,954.

In 1945, reports received numbered 19,025 as compared with 16,121 in 1944. A good part of the increase was recorded in the number of reports received from owner-builders due, in all likelihood, to the number of persons, desperately in need of housing accommodation, who erected their own homes because they were unable to obtain the services of a contractor. These statistics are included in the tables showing the operations of general contractors, trade contractors and subcontractors. Although the increase in the number of reports was considerable, the comparatively small extent of their operations does not appreciably affect other totals.

The following table classifies the various types of construction carried out in 1946. The item "Trade Construction" covers such items as bricklaying, carpentry, plumbing, heating, electrical work, etc., reported by contractors who confine themselves to a specific type of work. Details by provinces and more complete information regarding the industry will be found in the reports of the Bureau of Statistics on the construction industry.

VALUES OF NEW AND OTHER CONSTRUCTION CLASSIFIED BY TYPE, 1946

Type of Construction	*New Construction*	*Repairs, Alterations and Maintenance*	*Total Value*
	$	$	$
BUILDING CONSTRUCTION—			
Dwellings and apartments	170,691,370	22,935,510	193,626,880
Hotels, clubs and restaurants	5,759,917	4,404,259	10,164,176
Churches, hospitals, etc.	37,745,863	10,878,093	48,623,956
Office buildings, stores, theatres and amusement halls ..	26,897,856	23,100,652	49,998,508
Grain elevators, factories, warehouses, farm and mine buildings	110,777,016	49,850,756	160,627,772
Garages and service stations	13,626,877	7,721,753	21,348,630
Radio stations	259,622	43,876	303,498
Armouries	793,711	2,723,788	3,517,499
Aeroplane hangers	—	24,254	24,254
All other building construction	647,016	1,525,351	2,172,367
TOTALS, BUILDING CONSTRUCTION ..	367,199,248	123,208,292	490,407,540
STREET, HIGHWAY, POWER, WATER, ETC., CONSTRUCTION—			
Street, highways and parks	64,546,963	47,345,468	111,892,431
Bridges, culverts, subways, etc.	6,447,272	6,076,652	12,523,924
Water, sewage and drainage systems	21,338,166	5,685,967	27,024,133
Electric power plants, including dams, reservoirs, transmission lines and underground conduit	47,029,252	11,921,487	58,950,739
Railway construction, steam and electric	923,905	800,453	1,724,358
Aerodromes or landing fields	1,728,713	258,846	1,987,559
Telephone and telegraph lines	329,604	317,064	646,668
All other constructions, including installation of boilers and machinery	3,590,006	2,209,380	5,799,386
TOTALS, STREET, ETC., CONSTRUCTION ..	145,933,881	74,615,317	220,549,198
HARBOUR AND RIVER CONSTRUCTION	10,051,408	5,890,131	15,941,539
TRADE CONSTRUCTION ..	54,187,606	87,575,520	141,763,126
GRAND TOTALS ..	577,372,143	291,289,260	868,661,403

THE CANADIAN FUR TRADE

By J. K. FINLAYSON

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WHEN John Cabot returned to England from his voyages to North America in 1497 and 1498, he reported that excellent fishing banks were found near to what subsequently became known as Newfoundland. Norman fishermen from Dieppe and Rouen, Bretons from St. Malo and Basque whalers from St. Jean de Luz in the Bay of Biscay were among those who, many years after, came to ply their trade in the new waters and bartered fish for furs offered by the Indians. These furs, when taken to France, increased the demand among the ladies and gallants of the French Court, and so fur trading adventurers began to carry on a lucrative business between the new country and France.

In 1599 Tadousacc, on the St. Lawrence River, was built by François Grave, Sieur du Pont, and Chauvin as a trading post for the Indians of the Saguenay tribe, and later in 1608 the search for furs led to the founding of a " Habitation " (now the City of Quebec) by Samuel de Champlain of Brouages, on the same site where Cartier had, in 1535, discovered the native village of Stadacona. Champlain also established Montreal where, in Cartier's time, there had been the Indian village of Hochelaga.

Many groups of Frenchmen were granted fur trading monopolies on condition that colonies were founded but all such settlements failed. The fur trade, however, on the lands around the Gulf of St. Lawrence, or New France as it was then called, and on Newfoundland had continued. Many white fishermen or their descendants had become " coureurs de bois " and had married Indian women. On the arrival of Champlain from Acadia it is probable that he was able to include some of these white adventurers and even their half-Indian sons in his party. When he later explored the upper reaches of the St. Lawrence and Ottawa Rivers, in 1613, it was thus easier for him to become friends with the Algonquin tribe.

The Dutch and English to the south had, in the meantime, allied themselves with the fierce Iroquois tribes of Indians and much fighting ensued between the French, with their Huron and Algonquin allies, and the English with the member tribes of the Five Nations Federation.

By this time the discovery of Hudson Bay had been made. While Henry Hudson was at James Bay in the spring of 1611 a native approached and was presented with a knife, a looking glass and some buttons. He returned the following day with two beaver skins and two deer skins. On presenting these to Hudson, the Englishman gave him a hatchet. This noteworthy incident marked the beginning of trade between the English and the natives of the Hudson Bay region.

In 1627 Cardinal Richelieu came into power in France. His astute political mind saw the encroachments on New France of both the British from Acadia and the Dutch from New Amsterdam with their Iroquois allies, and he set about to strengthen the French position. He induced Louis XIII to rescind the monopoly then in being, and proceeded to form another, the Company of New France, generally called the Company of One Hundred Associates, of which he, himself, was one.

The beginning of the Company was inauspicious as they lost their ships to the British, with whom the French were then at war. After the Peace Treaty of 1632 in which Canada and Acadia were returned to the French, Richelieu again vigorously prosecuted his colonisation plans for a time, but the Associates became less colonisers and more fur traders, until finally they lost their charter, after thirty years' existence.

In New France many free fur-traders were in the business, much to the annoyance of the French authorities. A fur-trading post was built at Three Rivers in 1634 where these free traders made their headquarters. Among these men were Pierre Espirit Radisson and his brother-in-law Médard Chouart, Sieur des Groseilliers, who penetrated to the prairie outskirts, being the first white men to meet the Sioux and the Prairie Cree Indians. These two men were destined to be the means of opening up Canada to the British.

In 1663, they returned to Three Rivers from the Hudson Bay district with many valuable bales of fur, and a plan for opening trading posts on the rivers emptying into the Bay, so that furs could be shipped by a direct route to Europe and thus escape the serious menace of the Iroquois. The Governor of the post rejected their plan and confiscated their furs. Merchants in London, however, when approached, lent a receptive ear to the plan of the two Frenchmen, but they required a monopoly from the King. This was duly obtained and, in 1668, two small vessels, the *Nonsuch* and the *Eaglet* sailed down the Thames to begin the westward voyage.

Only the *Nonsuch*, with Groseilliers on board, reached Hudson Bay where a winter was spent. Groseilliers visited Indian camps and when the ship sailed home in 1669 she carried a heavy load of beaver skins. So successful had been the venture that King Charles granted a Royal Charter to the " Governor and Company of Adventurers of England Trading into Hudson's Bay," the Governor being " Our Deare and entirely Beloved Cousin, Prince Rupert." The objects of the Company, according to the Charter, were: " Discovery of a New Passage into the South Sea, and for the finding some Trade of Furrs, Mineralls, and other considerable commodityes."

The *Nonsuch* had wintered on the Rupert River at James Bay, and here, later the Adventurers built Fort Charles from which shipments of furs were made to London. The first Hudson's Bay fur auction was held in December 1671 at " Garraway's," a coffee house in London. The method of selling was to hold a skin aloft for bids while an inch of candle burned itself out. The accepted bid was the one made as the light died. A statement made by the Company in one of the early years was, " . . . . our Returns in Beavers this yeare (by God's blessing) are modestly expected to be worth £20,000."

Trouble boiled up at Fort Charles between Charles Baily, the Governor of the Fort on the one hand, and Radisson and Groseilliers on the other, only ending with the two Bretons leaving the service of the Company in London, following which they joined the Quebec Compagnie du Nord, a rival concern. Radisson, however, eventually returned to the Hudson's Bay Company's employment.

In 1713, France surrender all claims in the Bay, under the Treaty of Utrecht, to the British. In addition to the rivalry of the Compagnie du Nord there was also competition throughout the years from independent traders. After the end of the Seven Years' War, British free fur traders began to spread westward and northward, proudly calling themselves " Nor'Westers."

In 1768 the British Government permitted traders, other than the Hudson's Bay Company's men, to go into Rupert's Land. These men pushed their way in search of furs into the Lake Winnipeg and Saskatchewan River country, where the Company had hitherto had a monopoly. The " Nor'Westers " also built posts on the rivers leading to Hudson Bay to intercept the Indians on their way to Hudson's Bay Company's posts.

The intrusion, as the Company considered it, of these independent fur-traders necessitated a change of policy. Inland posts were built, Cumberland House being the first. It was built in 1774, on the Saskatchewan River west of where The Pas, Manitoba, is today. The building of these posts and the resultant heavy competition engendered bitter rivalry between the Company and the other traders.

Previous to 1784 each trader was independent but there had been from time to time agreements between individuals. Owing to the aforementioned rivalry, however, it was decided by a number of the leading Montreal fur-traders to form the North West Company, the profits being shared in accordance with the amount each put in, thus forming a joint stock concern.

The rivalry between the North West Company and the Hudson's Bay Company became bitter, and inspired greater exploration in the search for better fur country. The North West Company, however, although full of energy, was having internal troubles at this time. There were divisions among the shareholding traders. Some factions even broke away from the company to form new organisations. One of these, the X Y Company, was formed by Alexander Mackenzie, the explorer, but, like the other offshoot companies, it was shortlived. There was violence and murder, caused by rum-selling and jealousies, but in 1804 a stronger North West Company emerged from wiser counsels.

It was true that many of the officers of the Hudson's Bay Company and the North West Company were quite friendly through the formative years of the latter, as witness a letter from a Hudson's Bay Company factor to the head office in London—" I had the honour of my neighbours' (from the North West fort) company to dinner," and an entry, later, in the journal of a Nor'Wester—" The greater part of the North West and Hudson's Bay people live on amicable terms." Nevertheless, it was inevitable, especially where forts were not far apart, that jealousies between the officers of the two companies, would break out into violence and death. Fuel was added to the fire when Lord Selkirk obtained grants from the Hudson's Bay Company of large tracts of prairie through which the Nor'Westers had to pass to reach their forts throughout the West. Endeavours were made in Scotland to dissuade the Scottish Highlanders from joining Selkirk's colonization parties and, when they did come, they were twice ousted, with bloodshed. The descendant of the Black Douglas, however, persisted until his colony on the Red River, where Winnipeg now is, was definitely established.

The struggle between the two companies was seriously detrimental to both, but finally they were amalgamated into the remodelled Hudson's Bay Company in 1821. The new Company was virtually ruler of the west from Davis Strait to the Pacific Coast and from the California border to the Arctic Ocean on the Mackenzie, and there followed forty years of great prosperity. Later, there was first a reduction of the territory when the 49th parallel was made the southern boundary, and a second diminution when Vancouver Island and British Columbia were created crown colonies in 1849 and 1858 respectively. A few years more and the licence granted in 1821, giving the Company rights of exclusive trading in the Indian territories lapsed and was not renewed; ten years later the Company surrendered its other privileges.

When the amalgamation was brought about, a young man was to prove himself the greatest figure in the history of the Hudson's Bay Company. He was George, later Sir George, Simpson, who, at the age of thirty-four, was made Governor of the American affairs of the Company. Under his leadership the Indians received fair treatment, and a policy of conservation of fur-bearing animals was instituted. He also discouraged the selling of liquor. York boats were used instead of canoes, because they could take a larger cargo and were cheaper to operate. He increased the number of posts, enlarged the principal ones and, generally, brought disciplined system into the Company's affairs by visiting the posts year after year.

Furs went out to Europe annually from York Factory on the west coast of Hudson Bay and from Moose Factory on James Bay, the place where the ill-fated Hudson had wintered. The favourite furs were beaver, marten, otter and fox. Brown beaver was the staple pelt. Other skins were not despised. Mink, muskrat, skunk, wolverine, fisher, lynx, wolf and bear were among them and, on the prairies, buffalo hides. Many Canadian police officers still use buffalo coats in winter, obtained from the large herd at Elk Island, Alberta.

As the State of Minnesota increased its population, trade between Canada and the south opened up on the Red River by boat. The Hudson Bay route was gradually abandoned and more and more goods were brought in from the United States by the Hudson's Bay Company, whose net profits for many years averaged around £80,000, most of them from furs. In 1870 the Canadian Government paid the Company £300,000 sterling for surrendering certain of its rights, and permitted it to retain lands at each post north of the North Saskatchewan River, as well as 1,120 acres in each township south of that river up to a total of 7,000,000 acres.

During several decades after the Canadian Pacific Railway was built to the Pacific Coast there was an increasing influx of settlers who slowly pushed northward as the prairie country was settled. Trappers had to go farther into the hinterland to get their furs. Fortunately for the fur trade the greater part of the North is not suitable for farming, so that it is still a great fur reserve.

Nevertheless, regulation has been found necessary owing to the increasing demand and the rise in prices. There were and are difficulties in regulation, however. Trappers, both White and Indian, were scattered over wide areas of the North. Authorities could not control all modes of transportation of furs. Prohibition of capture of certain animals to conserve future fur supplies was not effective. Prohibited animals became higher priced because of their scarcity and the temptation to violate protective measures was great. The yielding to this temptation necessitated stricter measures.

New Brunswick prohibited the trapping of beaver from March 20, 1897, for two years and at intervals thereafter. Fines ranging from $20 to $50 on conviction. When permission was given to trap a limited number of beaver a royalty of $2 per skin was charged. The Eastern Provinces and Manitoba passed protective laws before 1900; Ontario as early as 1868. The old North West Territories fixed close seasons for some fur bearers in 1885. When the Territories were carved up and Saskatchewan and Alberta came into being, the former passed protective measures in 1905 and the latter in 1907. Trappers' licence fees were general in all provinces. Some provinces did not license non-residents, while in other provinces and in the Yukon Territory residents did not require licences.

Today, all provinces license trappers, dealers and, except in Prince Edward Island and New Brunswick, fur farms. In some provinces settlers or farmers who are British subjects can trap on their own land without being licensed. Some provinces register trap lines. Recently the Saskatchewan Government inaugurated a system of districts in which only licensees were permitted to trap. The licensees will naturally report poachers in their districts, and thus, unlicensed trapping and selling without paying royalties will be materially reduced, if not, indeed, stopped.

Some idea of present licence fees can be gained from those of Manitoba, which are, $2 for a trapper, $10 for a fur dealer, $1 to $10 for fur farms, according to the number of animals, and for a muskrat ranch $5 for 160 acres and $1 for each extra 100 acres or portion of 100 acres. Royalties on pelts in Quebec range now from one cent for each squirrel to $2 for beaver, fisher and blue fox; in Ontario they rise from five cents for weasel, skunk and muskrat to $5 for silver or black fox.

The beginning of fur farming is traced to the early segregation of large and small tracts of land, lake or marsh for protected colonies of fur animals, such as the Hudson's Bay Company's beaver colony on Charlton Island in 1846, and the later marshland muskrat preserves of private firms and individuals. Silver foxes have been captured in the wild and were known in the Hudson Bay and Mackenzie regions. One estimate made was that for 30 red foxes caught there would be one silver fox pelt taken. Fur farming, as it is known today, began in Prince Edward Island. Sir Charles Dalton (then Mr. Dalton) procured a pair of silver foxes in 1833, and went into partnership with a Mr. Oulton, on Cherry Island, where they kept the animals in pens of wire netting. Some of the early breeders agreed among themselves not to sell breeding animals. This monopoly held back the growth of the industry and it was only when it was broken, in 1910, that fox farming increased in importance. Prices of live silver foxes soared and there was a period of great speculation in the business, which spread to other provinces. Many of these concerns, however, went out of business when prices declined after World War I.

J. Walter Jones, in his "Fur Farming in Canada," writes of the troubles of fox farmers: "(1) No good fencing material, such as woven wire, was available. (2) Warm, dry quarters for young litters were not provided, the necessity of having a small well-insulated nest which would be sufficiently warmed by the mother's body not being realised. (3) The monogamous nature of foxes was not recognised and, being quartered in one pen in large numbers, the young were killed. (4) The price of furs was not high enough to induce breeders to risk large amounts of capital in experiment, and those who had the aptitude for business usually possessed little capital."

Fur-farming has now been extended to include many fur-bearing animals. Mink, marten, fisher, rabbit, raccoon, skunk, coypu (nutria), and, recently, chinchilla. Fashion trends have to be considered very seriously in this business and those in it keep their ears to the ground. Colour mutations and new selections may suddenly become the desire of "milady." What "the Colonel's lady" dons today "Judy O'Grady" desires tomorrow. In recent years there have been new types of foxes, known as platinum, platinum silver, pearl platinum and white marked, while in the new types of mink there are silver sable, platinum, silverblu, snow white and others.

The Dominion Department of Agriculture at Ottawa maintains a Fur Inspection and Grading Service which is of great benefit to the whole industry. Guidance is given in the planning of matings, the standard of pelt quality is raised and the elimination of poor pelts tends to raise the prices of all. The rancher is given an incentive to improve his animals and pelts to the betterment of the whole business.

In the Census of 1881 the value of raw furs produced in Canada in 1880 was given as $987,555, while by 1910 the value had risen to $1,927,500. The Dominion Bureau of Statistics at Ottawa began the annual collection of returns from dealers in raw furs in 1919. The game departments of the provinces co-operated by supplying lists of licensed dealers. Each dealer completed a schedule giving the number and the market value of each kind of pelt bought from trappers and fur farmers.

The first annual report issued by the Bureau showed a total of 3,559,174 raw furs taken in the 1919-1920 season, having a total vlue of $21,387,005. Fur farmers to the number of 429 supplied $338,335 worth of this amount. Muskrat pelts held first place with a value of $6 million, beaver was second with $5 million, marten came third with a value of $1·9 million, mink was fourth being valued at $1·7 million, while black and silver foxes totalled $964,817.

At that time Ontario led all the provinces in the value of furs taken, having a total of $6·4 million, Quebec came next, followed by the three Prairie Provinces and the Northwest Territories, the remaining provinces having low values.

Abnormally high prices were obtained in the early part of the 1919-20 season, so the total value cannot be considered as representative of the value of an average season. The following year, for instance, the value declined to $10·2 million and the five-year average for the seasons 1920-21 to 1924-25 was $15·1 million.

During the season of 1929-30 the value was $12·2 million, the leading pelt in the matter of value being the silver fox at $2·7 million, almost three times greater than its total value in 1919-20. When another ten years had passed the value of pelts from wild animals and ranch-bred fur-bearers was $16·7 million for the season 1939-40, but during World War II prices rose and the value in the last report for 1944-45 totalled $31 million, mink being in first place with a value of $8 million, with muskrat lower at $6·3 million, while beaver at $4·7 million and silver fox, including new types, at $4·5 million were also high in value.

Whereas, in the calendar year 1939, 418,318 pelts from fur farms were valued at $5·2 million, in 1944, 346,022 furs brought $8·2 million, an indication of the increase in value obtained during the war years.

While wild life still produces the greater portion of the Canadian furs, pelts from fur farms steadily increased until the season of 1937-38, when they were 43 per cent of the total value as compared with only 4 per cent in the 1924-25 season. The 1944-45 proportion was back to where it was in 1934-35 at 31 per cent, but in the latter season the total value was only $12·8 million whereas the total value in 1944-45 was $31 million.

Fur farms, however, have another source of income. They sell breeding animals. In 1920 the value of the live animals sold totalled $736,071. In 1944 the total value was $1,141,239. The capital value of fur farms, consisting of land, buildings and fur-bearing animals was $19·4 million in the calendar year 1944.

The tariff on furs imposed by the United States in 1922 of 50 per cent, later reduced to 35 per cent, and the competition from new fur farms in that country, caused the Canadian fur farmers to turn again to London, the great fur market of the world. Unfortunately, many producers placed the emphasis on numbers instead of on quality, with resulting reductions in prices. Government inspection and grading, however, are rapidly changing this situation.

World War II adversely affected the Canadian fur-farming industry in so far as black and silver foxes were concerned. Not only did Canada rapidly lose the British and European markets in all furs, but also much of the United States market in black and silver fox pelts, as that country imposed a quota in 1939 of 100,000 units for all countries to protect its own fox-farming industry. At first, a unit consisted of each piece, whether it was a whole pelt, a head, a paw, a tail, or a finished article. In the fall of 1940 the unit was changed to pelts and a separate quota was made for tails and other pieces.

These quotas did not interfere with the exportation to the United States of pelts of other fur-bearing animals, and the loss of the British and European markets was more than offset by the large increase in Canada's exports to the United States and also by the increase in the fur shipments to Mexico and to South American countries. Exports increased from $14·3 million in the twelve months ending on June 30, 1939, to $29·1 million at June 30, 1944, and $24·6 million at June 30, 1945.

The first Canadian auction sale was held in Montreal in 1920, which has been recognised as a fur market since World War I. Auction sales of furs are now held at Vancouver, Edmonton, Regina and Winnipeg. In Regina the Saskatchewan Government maintains a Fur Marketing Service for the Province's fur producers and it is this Service that holds the auction sale.

The Hudson's Bay Company held its first post-war sale in London in February, 1946, buyers being present from Norway, Sweden, France, Switzerland and the United States. London had resumed her pre-war leadership in the fur trade.

In the fur dressing industry in Canada the customer provides the furs and is charged for the treatment of the pelts according to the work done on them. In 1920 the statistics included custom work, storage and repair of furs. The amount received was $1 million. The total amount received for treatment of furs in 1939 was $1·7 million, and in 1944 the total was $3·1 million.

The manufactured production of the fur goods industry in 1920 was valued at $4·5 million for coats, caps, muffs, stoles, etc. By 1939 the total was $18·3 million, while the year 1944 saw a total production to the value of $40·9 million, the largest ever recorded in Canada. The bulk of the product consisted of fur coats, of which ladies' coats, jackets and boleros were valued at $27·9 million.

Truly, World War II did not daunt the members of the fur industry—the trappers, the fur farmer, the fur dresser and the fur manufacturer. The immediate future of the fur industry is not clear. When the world breathes more easily again, after its spell of war and its present agitated peace, we may expect that the demand for furs will continue to be strong.

PELTS OF FUR-BEARING ANIMALS PRODUCED WITH PERCENTAGES SOLD FROM FUR FARMS, YEARS ENDED JUNE 30, 1922-46

Year	*Pelts*		*Approximate P.C. of Value Sold from Fur Farms*
	Number	*Value*	
		$	
1922	4,366,790	17,438,867	4
1923	4,963,996	16,761,567	4
1924	4,207,593	15,643,817	6
1925	3,820,326	15,441,564	4
1926	3,686,148	15,072,244	5
1927	4,289,233	18,864,126	6
1928	3,601,153	18,758,177	11
1929	5,150,328	18,745,473	13
1930	3,798,444	12,158,376	19
1931	4,060,356	11,803,217	26
1932	4,449,289	10,189,481	30
1933	4,503,558	10,305,154	30
1934	6,076,197	12,349,328	30
1935	4,926,413	12,843,341	31
1936	4,596,713	15,464,883	40
1937	6,237,640	17,526,365	40
1938	4,745,927	13,196,354	43
1939	6,492,222	14,286,937	40
1940	9,620,695	16,668,348	31
1941	7,257,337	21,123,161	26
1942	19,561,024	24,859,869	19
1943	7,418,971	28,505,033	24
1944	6,324,240	33,147,392	28
1945	6,994,686	31,001,456	31
1946	7,593,416	43,870,541	30

Bibliography

A History of the Canadian People. Wm. Stewart Wallace.
Beaver, Kings and Cabins. Constance Lindsay Skinner.
Building the Canadian Nation. George William Brown.
The Canada Year Book, 1945. Dominion Bureau of Statistics.
The Fur Trade of Canada. H. A. Innis.
When Fur Was King. H. J. Moberley and W. R. Cameron.

FUR-BEARING ANIMALS ON FUR FARMS, AS AT DECEMBER 31, 1941-44

Kind of Animal	1941		1942		1943		1944	
	No.	*Value*	*No.*	*Value*	*No.*	*Value*	*No.*	*Value*
		$		$		$		$
Badger	5	55	3	50	Nil	—	Nil	—
Chinchilla ..	292	212,150	205	178,000	244	50,000	263	100,700
Coyote	39	390	35	485	28	675	17	266
Fisher	145	11,745	101	9,225	124	13,405	115	13,860
Fitch	398	1,614	294	2,784	255	1,396	153	1,185
Fox, blue ..	1,462	111,431	1,445	72,789	1,985	190,577	2,357	251,875
Fox, cross ..	816	20,806	684	21,795	602	25,098	603	23,572
Fox, new-type ..	6,511	585,847	11,720	877,994	20,786	2,015,892	28,158	2,493,602
Fox, red	499	6,081	479	8,245	535	13,069	551	9,718
Fox, silver ..	91,543	3,762,922	83,429	3,483,868	74,514	4,233,722	71,121	3,707,483
Fox, white ..	18	1,975	14	1,400	3	275	Nil	—
Fox, other ..	Nil	—	Nil	—	Nil	—	20	1,835
Marten	305	21,255	317	23,170	298	24,988	291	28,312
Mink	153,447	3,173,323	104,686	2,059,612	119,266	3,465,492	144,166	4,907,501
Nutria	1,165	16,998	786	11,460	357	6,882	219	6,925
Otter	2	50	Nil	—	Nil	—	Nil	—
Raccoon	279	2,314	282	2,978	258	3,428	169	2,076
Skunk	2	15	Nil	—	2	4	2	4
TOTALS ..	256,928	7,928,971	204,480	6,753,855	219,257	10,044,903	248,205	11,548,914

CANADA'S EXTERNAL TRADE

By ARTHUR L. NEAL

Chief Treaty Research, Commercial Relations Division of the Dominion Foreign Trade Service

A DESCRIPTIVE AND STATISTICAL SURVEY

CANADA'S external trade is tremendously important to her own economic well-being and as a vital part of the world economic structure.

To Canadians a flourishing export trade spells prosperity —for the national income of the Dominion has closely followed, over a long period, its changing fortunes. About one-third of Canada's national income is derived from the sale of goods abroad. Barely less vital is Canada's extensive need of import sources of many articles for consumption and raw materials and equipment for industry.

Internationally as well as domestically, Canada's external trade is important, for this Dominion is among the greatest contributors to world commerce. Although Canada ranked only about thirty-first among the nations of the world in population, she ranked fifth (according to pre-war figures) with regard to total foreign trade, the sum of her exports and imports combined. Before the war, only the United States, the United Kingdom and Germany normally exceeded Canada in the value of exports. In import trade the Dominion ranked in eighth place. The war gave rise to an unprecedented expansion in Canada's trade while many of the other leading nations suffered a severe curtailment.

The reasons for the importance and magnitude of Canada's trade are not hard to seek. This small nation possesses a great abundance in a comparatively small variety of natural resources. This fact has had tremendous influence on the Dominion's economic development and has ordained a wide participation in the commerce of the world. Having prodigious capacity in certain specialised fields of production yet lacking population great enough to constitute an adequate domestic market, Canada has had to look to the whole world for markets in order to foster the profitable and economic exploitation of its natural resources and the development of industry based upon them.

Canada's exports do not represent a mere overflow of surplus production into external market but are the outcome of a productive organisation developed on the basis of the needs of other countries for commodities which Canada's resources are capable of supplying far in excess of domestic requirements. In each of the main fields of primary production export trade is indispensable.

Imports are also imperative, for only by drawing upon world-wide sources of supply can Canada support a high standard of living within its boundaries.

Canada is a land of vast grain areas, having a wide variety of other vegetable resources, but it grows no cotton, no rubber, and must look abroad also for tea, coffee, cane sugar, cocoa, tropical fruits, nuts, and many other vegetable products. Canada is rich in minerals, but its manufacturing areas depend, to a degree, upon imported coal, and its petroleum resources, at present developed, fall

CANADA'S IMPORTS, EXPORTS AND TOTAL TRADE, 1926 TO 1947

Calendar Years	*Imports*	*Exports*			*Total Trade*	EXCESS: (—) *Imports* (+) *Exports*
		Canadian Produce	*Foreign Produce*	*Total*		
	$	$	$	$	$	$
1926	1,008,341,911	1,261,241,525	15,357,292	1,276,598,817	2,284,940,728	(+) 268,256,906
1927	1,087,117,930	1,210,596,998	20,445,231	1,231,042,229	2,318,160,159	(+) 143,924,299
1928	1,222,317,916	1,339,409,562	24,378,794	1,363,788,356	2,586,106,272	(+) 141,470,440
1929	1,298,992,692	1,152,416,330	25,926,117	1,178,342,447	2,477,335,139	(—) 120,650,245
1930	1,008,479,479	863,683,761	19,463,987	883,147,748	1,891,627,227	(—) 125,331,731
1931	628,098,386	587,653,440	11,907,020	599,560,460	1,227,658,846	(—) 28,537,926
1932	452,614,257	489,883,112	8,030,485	497,913,597	950,527,854	(+) 45,299,340
1933	401,214,311	529,449,529	6,034,260	535,483,789	936,698,100	(+) 134,269,478
1934	513,469,497	649,314,236	6,991,992	656,306,228	1,169,775,725	(+) 142,836,731
1935	550,314,551	724,977,459	12,958,420	737,935,879	1,288,250,430	(+) 187,621,328
1936	635,190,844	937,824,933	12,684,319	950,509,252	1,585,700,096	(+) 315,318,408
1937	808,896,325	997,366,918	14,754,862	1,012,121,780	1,821,018,105	(+) 203,225,455
1938	677,451,354	837,583,917	11,100,216	848,684,133	1,526,135,487	(+) 171,232,779
1939	751,055,534	924,926,104	10,995,609	935,921,713	1,686,977,247	(+) 184,866,179
1940	1,081,950,719	1,178,954,420	14,263,172	1,193,217,592	2,275,168,311	(+) 111,266,873
1941	1,448,791,650	1,621,003,175	19,451,366	1,640,454,541	3,089,246,191	(+) 191,662,891
1942	1,644,241,933	2,363,773,296	21,692,750	2,385,466,046	4,029,707,979	(+) 741,224,113
1943	1,735,076,890	2,971,475,277	29,877,002	3,001,352,279	4,736,429,169	(+)1,266,275,389
1944	1,758,898,197	3,439,953,165	43,145,447	3,483,098,612	5,241,996,809	(+)1,724,200,415
1945	1,585,775,172	3,218,330,353	49,093,935	3,267,424,288	4,853,199,460	(+)1,681,526,091
1946	1,927,279,402	2,312,215,301	26,950,546	2,339,165,847	4,266,445,249	(+) 411,886,445
1947	2,573,944,125	2,774,902,355	36,888,055	2,811,790,410	5,385,734,535	(+) 237,846,285

short of domestic requirements. Tin, and raw material for the Canadian aluminium industry must be imported, as well as iron, raw silk, certain fibres, chemicals and a wide range of highly finished articles that Canadian industry does not supply. Large imports per capita are essential, and Canada stands high among the nations in that regard.

GROWTH AND DEVELOPMENT

The history of Canada's trade has been one of almost unparalleled expansion, particularly during the present century. In the seventy odd years between Confederation and the outbreak of hostilities in 1939, Canada's trade rose from $120,000,000 to almost $2,000,000,000. By way of comparison the United States during the same period increased its share of world trade by 50 per cent, Germany its share by 10 per cent and the United Kingdom's relative position declined by 30 per cent and France's by 40 per cent. Canada's proportion increased by fully 200 per cent.

In 1868, the first year of Confederation, exports of Canadian products were valued at $48,500,000, in 1900 at $169,000,000 and in 1928, the peak year in peacetime at $1,339,000,000. Following the world economic collapse of 1929 the trade of Canada declined along with that of other countries but after 1932 the upward trend was re-established although until the outbreak of war the high levels of the pre-depression years were not attained. The trend of imports paralleled that of exports.

During the whole period of hostilities both imports and exports increased steadily. In 1944 Canada's total trade (excluding gold) reached a record value of $5,242,000,000, a more than three-fold increase over the 1939 total of $1,687,000,000. Exports of domestic products continued to expand at a rapid rate throughout the war and in 1944 reached the unprecedented value of $3,440,000,000, an increase of more than 271 per cent over 1939. More than half of this increase was in foodstuffs, including meat and dairy products to the United Kingdom, and large shipments of grain to the United States.

Imports, too, increased throughout the war years. From 1939 to 1942 the upward trend was rapid, but it has since tended to level off. The demand for imports was closely related to the war production programme. Large importations of machinery and machine tools, dies, and other factory equipment were a necessary prerequisite. As the war production programme proceeded, the growth of imports became less marked, while exports continued a strong upward rise. The end of hostilities is reflected in declines in both imports and exports in 1945 as compared with the previous year. Comparative statistics of Canada's foreign trade for the years 1926 to 1947 are shown in the table on page 339.

COMPOSITION OF EXPORTS

Agricultural Products

Agriculture, the most important of the basic industries, is the largest source of income in Canada and before the war was the greatest contributor to export trade. Of exports of agricultural origin, wheat was the greatest before the war. It is not too much to say that the economic justification for the settlement of the Prairie Provinces of Canada is found in the development of export markets for wheat. For many years in peacetime, wheat was Canada's foremost commodity, although in recent years newsprint and gold occasionally topped the list. Since the war, wheat has declined in relative, though not in absolute, importance. Exports of wheat were valued at $109,000,000 in 1939, at $234,000,000 in 1943 and at $265,000,000 in 1947. There are listed below a few of the principal exports of commodities of agricultural origin for the calendar years 1939, 1943, 1945 and 1947.

PRINCIPAL EXPORTS OF COMMODITIES OF AGRICULTURAL ORIGIN

	1939	1943	1945	1947
	$	$	$	$
Wheat	109,051,000	234,458,000	475,787,000	265,200,441
Bacon and Hams ..	32,656,000	116,122,000	96,493,000	62,081,160
Wheat Flour ..	16,378,000	66,274,000	97,855,000	196,578,113
Cattle	15,353,000	9,604,000	12,257,000	14,979,518
Cheese	12,249,000	26,811,000	27,909,000	14,162,303
Raw Tobacco ..	10,183,000	4,241,000	6,738,000	12,601,469
Canned Fruits and Vegetables ..	10,165,000	1,221,000	3,541,000	8,211,191
Whiskey	7,914,000	12,134,000	22,977,000	22,983,257
Barley	7,882,000	32,435,000	24,101,000	1,211,041
Leather, Unmanufactured	6,856,000	3,362,000	4,004,000	12,918,826
Apples, Fresh ..	5,853,000	1,838,000	3,457,000	8,300,186
Bran, Shorts, etc. ..	4,845,000	1,865,000	1,863,000	1,891,790
Oats	4,142,000	42,294,000	47,660,000	12,388,641
Hides and Skins, Raw	3,529,000	565,000	558,000	1,642,920
Oatmeal and Rolled Oats	3,432,000	613,000	5,699,000	5,830,668
Milk, Processed ..	3,295,000	5,222,000	12,985,000	13,581,253
Butter	2,674,000	3,820,000	2,236,000	1,597,095
Potatoes	2,510,000	2,831,000	5,710,000	8,339,522
Rye	2,045,000	4,091,000	6,876,000	31,937,965
Malt	1,963,000	2,082,000	1,298,000	1,371,653
Pickles and Sauces ..	1,612,000	828,000	1,143,000	844,186
Clover Seed ..	1,310,000	928,000	5,202,000	6,557,107
Leather, Manufactured	1,248,000	2,789,000	3,748,000	7,400,755
Maple Sugar ..	1,216,000	1,160,000	1,131,000	1,822,654
Canned Meats ..	832,000	5,052,000	21,752,000	19,778,437
Sausage Casings ..	787,000	1,322,000	1,641,000	1,830,275
Hay	774,000	2,527,000	2,620,000	3,131,256
Horses	726,000	1,420,000	1,387,000	850,796
Poultry (Dead) ..	643,000	239,000	3,198,000	4,814,227
Pork, Fresh	552,000	3,512,000	272,000	449,797
Confectionery, incl. Candy	516,000	3,298,000	5,153,000	3,908,296
Eggs (including dried)	311,000	15,064,000	44,120,000	36,968,096
Ale, Beer and Porter	172,000	5,102,000	4,971,000	4,670,876

Minerals

Before the war products of mineral origin constituted the group next to agriculture in value of exports. At that time the bulk of mineral exports comprised non-ferrous metals in various stages of manufacture. Canada produces nickel, copper, zinc and lead very greatly in excess of its own requirements, exporting more than 90 per cent of the total output. The value of exports in 1939, 1943 ,1945 and 1947 are given below:—

	1939 $	1943 $	1945 $	1947 $
		000's omitted		
Nickel	44,594	68,346	54,778	60,443
Copper	36,502	30,816	40,860	59,298
Zinc	9,315	16,516	20,373	30,193
Lead	10,401	9,647	9,177	32,246
Silver Ore and Bullion	7,243	5,558	2,597	8,075
Platinum	6,853	7,717	13,298	11,672

The extraction of aluminium from clays presently available in Canada is not economic but the abundance of cheap electric power makes the recovery of aluminium from bauxite imported from the United States and British Guiana a profitable undertaking. In 1939 exports of aluminium and products amounted to $5,590,000. The enormous expansion of this industry since the war is reflected in the huge growth in exports which in 1943 amounted to $129,262,000 and in 1945 to $133,567,000 (1947, $63,955,574).

Exports of mineral origin included also iron and steel products, although Canada only recently became a producer of iron ore. While the effects of the war on Canada's trade were apparent throughout its whole composition, they are particularly striking in this group of commodities. Under this heading there are included for statistical convenience a large number of products of which iron and steel are the chief component. The principal item is vehicles, exports of which have risen in 1943 to a total of $507 million (in 1945, $352 million), as compared with exports in 1939 of just over $26 million. In connection with this growth it should be noted that, while Canada did not receive Lend-Lease Aid from the United States, many articles provided under Lend-Lease were brought into Canada for further processing and subsequently shipped to one or other of the United Nations for use in the common war effort. Many materials were imported also for processing which were not under Lend-Lease. These appeared in the import and export statistics and in some measure are responsible for the enormous growth in trade. This factor is applicable to many manufactured items exported from Canada but is particularly apparent in the case of vehicles and other iron and steel articles since the growth in exports has been supported through increased imports of parts and components. Total exports of iron and steel products were valued at slightly more than $63 million, in 1939 but by 1943 had risen to $716 million. In 1945 there was a decline to $555 million. Besides vehicles other items in the iron and steel group include machinery, farm implements, rolling mill products, and pigs, ingots, blooms and billets. Guns, rifles and firearms are included in this group and exports in 1943 were valued at nearly $144 million. The last is a distinctly wartime item and it is striking that the value of exports in 1943 was greater than the sales abroad of Canada's leading export commodity, newsprint, in 1939. Prior to the war, Canada had no appreciable export trade in guns, rifles and firearms, exports being valued at a mere $16,000.

To complete the story of minerals in Canada's export trade, mention must be made of gold and the non-metallics. Of the latter, the principal items are asbestos, abrasives, coal and gypsum. Exports were valued at $29 million in 1939 but due to wartime needs, mainly for abrasives, rose to $62 million in 1943 and were valued at $60 million in 1945.

Gold is consistently the most valuable item in Canada's mineral production. Since it is a money metal, gold does not move in international trade under the same circumstances as apply to other commodities. It is not generally considered as merchandise since world trade in gold is governed almost exclusively by financial rather than by ordinary commercial considerations. Moreover, it frequently happens that when Canadian gold is sold by the Bank of Canada to foreign buyers it still remains in the country. In such cases the gold is set aside, or " earmarked " in the vaults of the central bank and held at the disposal of the owners. For these reasons, exports of gold are not now included in the ordinary statistics of exports. Since the domestic consumption of gold in Canada is small, the total production approximately indicates the income derived by the industry through export trade. This amounted to $184 million in 1939 but manpower shortages and diversions to more essential needs resulted in drastic declines during the war years. Production in 1947 was valued at $106 million.

Forestry

The forest area of Canada totals nearly one and one-quarter million square miles and ranks third of all countries in this respect, exceeded by the U.S.S.R. and Brazil. The productive forest area in Canada is officially placed at 770 thousand square miles, an area equal to the combined areas of the British Isles, France, Sweden, Portugal, the Netherlands, Denmark and Finland.

In export trade, pulp and paper were Canada's principal commodities in peacetime, the largest single item being newsprint. About 94 per cent of Canada's newsprint production is destined for export and, in 1939, exports of this commodity were valued at $116 million.

Throughout the five years of war, Canada, with the help from two newsprint mills in Newfoundland, was virtually the only source from which the United Nations could import paper for their newspapers. During these years, Canadian newsprint mills were the mainstay of a free press in more than forty other countries. Notwithstanding manpower shortages and the diversion of hydro-electric power to other uses, exports of newsprint rose in 1943 to a value of $145 million and in 1945 to $179 million. In 1947 exports of newsprint from Canada were valued at $342 million. Second only to newsprint among the exports provided by the Canadian forests is woodpulp, valued in 1939 at $100 million. Tremendous quantities of pulp and of pulp and paper products in many forms were essential to the ability of the United Nations to wage war. In 1945, Canadian pulp exports reached a peak value of $106 million. While pulp and paper products rank first among Canada's exports of forest origin, the historic lumbering industry is also of high importance. In 1667, during the French regime, timber was first exported to Europe. This industry has assumed great proportions. Planks and boards of Douglas fir, spruce and pine, contribute the bulk of exports; shingles, pulpwood, and Douglas fir logs are important items. Other manufactured wood exports include laths, railway ties, telegraph poles, shooks and spoolwood. The reconstruction of devastated areas in Europe, combined with possible forest devastation and dislocation in the industry in the Scandinavian and other countries continues to present a postwar opportunity and a challenge for Canadian enterprise.

Other Exports

No summary of Canada's export commodities can rightly be concluded without mention of the fisheries and the fur trade of romantic history. The former represented an export trade of thirty million dollars before the war and sixty million dollars under the stress of the additional food requirements of the United Nations. The latter was valued at fifteen million dollars in 1939 and twenty-six million dollars in 1943.

COMPOSITION OF IMPORTS

Canada has extensive import requirements. Crude petroleum, coal, machinery and automobile parts are the most important commodities but none approaches in value the vast sums represented by the leading commodities exported from Canada. While Canada's exports comprises relatively few commodities in large quantities, imports cover a wide range.

For many years before the outbreak of hostilities imports into Canada had comprised mainly raw materials and industrial equipment. An approximate calculation indicates that in 1939 about 42 per cent of all imports represented producers' materials, 12 per cent represented producers'

CANADA'S IMPORTS OF LEADING COMMODITIES

CALENDAR YEARS 1939, 1943, 1945 AND 1947

NOTE.—Commodities arranged according to value 1939.

Commodities	1939 *Value* $	1943 *Value* $	1945 *Value* $	1947 *Value* $
Machinery, except farm	42,828,621	105,953,513	92,780,717	205,941,101
Coal	41,578,685	101,245,455	102,431,974	138,949,785
Crude petroleum	39,677,194	66,430,545	72,411,691	128,721,824
Iron and steel plates and sheets, hoop, band and strip	26,088,504	35,890,276	45,465,265	71,893,855
Automobile parts	25,308,323	67,118,013	67,855,156	98,431,717
Farm implements and machinery	20,917,487	20,228,341	50,435,476	105,404,869
Sugar for refining	20,225,605	23,654,547	28,482,362	46,406,917
Raw cotton	16,425,282	33,277,071	39,153,076	58,678,434
Automobiles	15,673,770	2,577,450	4,876,217	69,540,209
Fresh fruits	15,383,945	39,195,749	61,337,524	51,702,628
Books and printed matter	15,152,187	17,961,897	21,444,851	31,934,970
Electrical apparatus	13,751,833	48,541,588	43,052,284	68,773,183
Rubber, crude	11,812,958	14,515,438	6,943,423	14,739,206
Cotton fabrics	10,935,267	37,754,780	34,943,856	384,964,765
Tea	10,090,807	11,879,425	17,729,139	24,298,997
Vegetable oils	9,414,601	12,451,354	11,479,380	25,642,014
Paper	8,653,987	10,701,736	13,376,067	23,027,200
Gasoline	7,998,336	11,938,713	9,571,414	25,521,588
Clay and products	7,934,630	13,446,817	13,680,579	24,059,272
Glass and glassware	7,915,113	10,673,438	16,097,986	28,625,643
Stone and products	7,612,473	11,309,682	9,887,719	13,330,666
Engines and boilers	7,605,616	46,999,089	28,039,843	18,357,343
Furs	7,133,052	8,613,879	21,205,173	22,451,123
Alcoholic beverages	6,539,969	4,550,955	8,292,154	13,727,089
Raw silk	6,340,725	——	——	342,850
Dyeing and tanning materials	6,257,072	7,459,421	8,296,920	10,414,778
Raw hides	6,173,395	6,349,456	3,059,479	12,011,454
Fresh vegetables	6,150,587	13,874,203	21,251,605	18,977,671
Noils, tops and waste wool	6,072,177	7,194,378	6,874,850	13,084,828
Worsteds and serges	6,039,629	10,465,615	8,212,061	19,771,483
Dried fruits	5,723,175	5,449,233	7,126,591	13,789,199
Scientific and educational equipment	4,761,601	9,808,566	9,215,794	18,358,863
Paints, varnishes and pigments	4,661,956	6,281,152	8,660,314	13,441,471
Wood, manufactured	4,658,735	6,031,625	8,482,578	17,957,942
Corn	4,571,474	3,749,529	2,640,330	16,107,300
Raw wool	4,509,490	27,003,186	12,327,497	16,796,964
Meats	4,439,379	2,255,722	537,615	2,827,490
Iron ore	4,179,353	9,056,389	8,595,799	12,716,818
Raw coffee	4,154,644	7,385,804	8,884,734	13,326,904
Jute fabrics	4,013,616	8,183,041	11,039,257	21,977,379
Drugs and medicines	3,988,743	7,323,676	9,440,067	11,639,203
Settlers' effects	3,966,553	2,442,230	3,708,415	10,934,532
Fertilisers	3,948,314	3,867,402	3,706,518	6,584,828
Alumina, bauxite and cryolite	3,708,494	23,168,464	7,787,227	9,760,064
Nuts, except cocoanuts	3,508,175	3,192,341	12,250,609	13,399,836
Lumber and timber	3,392,033	2,980,592	4,202,958	9,493,522
Rubber manufactured and partly manufactured	3,370,582	8,405,529	8,154,203	17,845,217
Leather, unmanufactured	3,218,396	3,257,767	3,510,208	6,574,170
Soda and sodium compounds	3,180,298	4,739,426	3,698,147	6,607,563
Structural iron and steel	3,102,336	18,022,160	5,136,868	97,531,978
Bars and rails, iron	3,030,411	10,544,474	4,447,147	10,753,107
Articles for Army and Navy (Imperial)	955,226	45,535,228	35,572,043	3,025,438
War materials under O.C.P.C. 53/8907, etc.	——	191,136,044	88,953,943	1,693,477
War materials under O.C.P.C. 1/8255	——	76,890,378	——	——
Aircraft and parts	5,550,320	66,507,956	16,000,834	12,283,622
Guns, rifles, etc.	244,134	3,169,352	765,330	2,098,382

equipment, 24 per cent represented consumers' goods, 7 per cent transportation equipment, and 7 per cent fuel, electricity and lubricants. The remainder comprised advertising matter, containers, and other auxiliary materials for commerce and industry. Munitions and war stores had a certain number of items it was not possible to classify.

As stated above, the influence of the war resulted in an unprecedented growth. This growth was common to each of the groups listed above. The influence of wartime conditions was also reflected in the changes in the relative shares, consumers' goods dropping from the 24 per cent mentioned above to 15 per cent in 1944, while transport (largely owing to imports of war vehicles and parts) jumped from 7 to nearly 12 per cent of the total, and munitions and war stores imports which were not significantly large before the war, accounted for nearly 17 per cent in 1944. The last two items were relatively even more important in some of the earlier war years.

Looking at imports in somewhat greater detail the table on page 342 shows the principal commodities for the years 1939, 1943, 1945, and 1947, arranged by order of value in 1939.

It is sometimes suggested that the impetus given to industrialisation in Canada during the war will reduce the Dominion's dependence on outside sources of supply for many commodities.

Expansion of a productive capacity in Canada will undoubtedly enable Canadian industry to supply many postwar domestic demands which were formerly met by imported goods. The rapid development of the machine-tool industry during the war is a good example. Nevertheless, there will remain many things it will be found more

TRADE OF CANADA (EXCLUDING GOLD) BY LEADING COUNTRIES
1939, 1943, 1945, AND 1947

NOTE.—Countries arranged in order of importance, 1939.

(*Values in Thousands of Dollars*)

IMPORTS

Rankings				*Country*	1939	1943	1945	1947
1939	1943	1945	1947					
1	1	1	1	United States	496,898	1,423,672	1,202,418	1,974,679
2	2	2	2	United Kingdom	114,007	134,965	140,517	189,370
3	—	—	8	British Malaya	—	—	—	16,908
	66	—	—	British Straits Settlements*	13,145	8	—	—
4	6	5	9	Australia	11,269	11,453	17,180	14,222
5	4	3	4	British India and Burma	10,358	17,090	30,568	42,253
6	—	81	57	Germany	8,947	—	2	498
7	10	9	14	British Guiana	6,891	8,255	9,338	12,358
8	77	48	18	Belgium	6,778	1	380	10,120
9	69	53	22	France	6,027	6	273	8,755
10	16	8	21	Colombia	5,437	5,021	11,678	9,197
11	67	—	60	Japan	4,864	7	—	350
12	7	17	6	Argentina	4,406	10,199	7,333	17,961
13	8	11	30	Jamaica	4,357	9,350	9,273	6,371
14	3	10	17	New Zealand	4,266	24,776	9,276	10,831
15	—	—	86	Br. South Africa Northern Rhodesia	—	—	—	29
	18	12	33	Union of South Africa	3,991	3,770	8,433	4,228
	—	—	—	Other Br. South Africa	—	—	—	—
16	15	21	26	Barbados	3,874	5,115	5,466	7,776
17	56	47	37	Netherlands	3,795	47	401	3,530
18	14	20	16	Ceylon	3,562	5,605	5,683	11,653
19	19	14	15	Switzerland	3,459	3,752	7,863	11,941
20	20	30	34	Fiji	2,777	2,300	1,607	4,178
21	59	—	41	China	2,776	22	—	2,304
22	35	24	31	Trinidad and Tobago	2,668	758	3,101	5,654
23	26	31	27	British East Africa	2,626	1,174	1,539	7,683
24	71	86	35	Italy	2,354	3	1	3,872
25	73	33	38	Sweden	2,289	2	1,093	3,184
26	13	4	3	Venezuela	1,943	6,004	17,267	46,688
				TOTALS, ABOVE COUNTRIES	733,764	1,673,355	1,490,690	2,426,593
				GRAND TOTALS—IMPORTS	751,055	1,735,077	1,585,775	2,573,944
				British Empire	188,900	238,631	271,668	354,394
				Foreign Countries	562,155	1,496,446	1,314,107	2,219,550

* Now British Malaya.

economic to import than to produce at home. In fact, the growth of industrialisation is likely to increase rather than decrease total dependence upon imports. If industrialisation in Canada results in higher incomes within the Dominion—and it is hard to see why it should be pursued if it does not—increased demands for all sorts of commodities will follow. In addition Canadian industry is itself a large importer of materials. In the past when industry has advanced in Canada imports have increased pari passu.

THE CANADIAN TARIFF

The Canadian tariff is designed partly to provide revenue and partly to afford Canadian industry a measure of protection against foreign competition. The present tariff was originally enacted in 1907, although the schedule of rates of duty has been revised from time to time. It contains three scales of duty: (1) general, (2) intermediate, and (3) British preferential.

The intermediate tariff is lower than the general and forms the basis for the negotiation of trade treaties with non-British countries.

The British preferential tariff is still lower than the intermediate. In addition to these scales of duties, a surtax is provided which may be applied to countries discriminating against Canada, and there are also some special concessions below the intermediate tariff applying to most favoured foreign nations. The benefits of the British preference have been extended to practically all parts of the Empire and the intermediate tariff now applies to most important foreign countries. The United States was extended its benefits by the conclusion of a trade agreement on 15th November, 1935, which was revised and extended effective January 1, 1939.

A feature of the Canadian tariff is an anti-dumping clause. Special or dumping duty is leviable on imports into Canada which are sold on terms that are held to compete unfairly

TRADE OF CANADA (EXCLUDING GOLD) BY LEADING COUNTRIES

1939, 1943, 1945 AND 1947

NOTE.—Countries arranged in order of importance, 1939.

(Values in Thousands of dollars)

EXPORTS

Rankings				*Country*	1939	1943	1945	1947
1939	1943	1945	1947					
1	1	1	1	United States	380,392	1,149,232	1,196,977	1,034,226
2	2	2	2	United Kingdom	328,099	1,032,647	963,238	751,198
3	7	11	5	Australia	32,029	46,686	32,226	60,294
4	—	—	89	Japan	28,168	—	—	559
5	—	—	91	Br. South Africa: Northern Rhodesia	—	—	—	450
	9	12	4	Union of South Africa	17,965	35,611	31,593	66,674
	—	—	116	Other Br. South Africa	—	—	—	15
6	10	14	10	New Zealand	11,954	28,115	19,102	37,386
7	—	26	16	Norway	10,904	—	7,842	20,320
8	8	7	7	Newfoundland	8,506	43,473	40,515	55,085
9	—	44	36	Germany	7,869	—	2,725	6,690
10	—	8	6	Netherlands	7,357	—	39,970	55,940
11	—	10	8	Belgium	7,261	—	34,618	52,749
12	—	5	3	France	6,973	—	76,917	81,058
13	4	3	9	British India and Burma	5,396	134,576	307,939	43,770
14	23	16	14	Brazil	4,407	4,964	16,748	31,660
15	16	18	17	Jamaica	4,313	8,986	14,404	18,214
16	74	36	19	Sweden	4,284	44	4,169	17,461
17	14	17	15	Trinidad and Tobago	4,211	13,706	16,432	26,354
18	25	31	13	Argentina	4,117	3,677	6,003	31,697
19	22	19	18	Eire	3,597	4,985	14,278	17,598
20	18	25	24	Mexico	3,004	8,330	8,165	11,701
21	—	53	—	British Straits Settlements*	2,782	—	1,114	—
	—	—	32	British Malaya	—	—	—	7,464
22	—	29	12	China	2,636	—	6,572	34,984
23	17	4	11	Italy	2,231	8,815	89,470	35,688
24	15	21	21	Switzerland	1,850	11,580	10,922	14,196
25	—	49	26	Philippine Islands	1,819	—	2,153	10,448
				TOTALS, ABOVE COUNTRIES	892,124	2,535,427	2,944,092	2,523,579
				GRAND TOTALS—EXPORTS	924,926	2,971,475	3,218,330	2,774,902
				British Empire	430,806	1,401,662	1,486,848	1,168,501
				Foreign Countries	494,120	1,569,813	1,731,482	1,606,401

* Now British Malaya.

CANADIAN TRADE WITH CONTINENAL EUROPE

(Twelve months ended)

IMPORTS

Country	*Average December* 1935-39		*July*			
			1947		1948	
	Value $'000	*Per cent*	*Value* $'000	*Per cent*	*Value* $'000	*Per cent*
Albania	[1]					
Austria	245	0·6	21	[2]	295	0·5
Azores and Madeira	157	0·4	590	1·1	373	0·7
Belgium	6,330	15·8	8,878	16·7	10,960	19·8
Bulgaria	4	[2]			[1]	
Czechoslovakia	1,979	4·9	3,100	5·8	3,883	7·0
Denmark	165	0·4	767	1·4	2,024	3·7
Eire	69	0·2	108	0·2	41	0·1
Estonia	23	0·1				
Finland	70	0·2	39	0·1	27	[2]
France	6,382	15·9	7,934	14·9	10,143	18·4
Germany	10,364	25·8	359	0·7	676	1·2
Greece	47	0·1	100	0·2	143	0·3
Hungary	130	0·3	26	[2]	107	0·2
Italy	2,403	6·0	4,026	7·6	5,403	9·8
Latvia	11	[2]				
Lithuania	4	[2]				
Malta and Cyprus	2	[2]	30	0·1	[1]	
Netherlands	3,948	9·8	3,356	6·3	4,170	7·5
Norway	742	1·8	4,698	8·8	812	1·5
Poland	185	0·5	3	[2]	10	[2]
Portugal	265	0·7	1,595	3·0	1,223	2·2
Roumania	96	0·2	1	[2]	12	[2]
Russia	341	0·8	89	0·2	127	0·2
Spain	989	2·5	3,349	6·3	2,593	4·7
Sweden	2,044	5·1	3,041	5·7	3,283	5·9
Switzerland	3,110	7·7	11,163	20·9	9,050	16·3
Yugoslavia	98	0·2	21	[2]	4	[2]
TOTAL	40,203	100·0	53,294	100·0	55,359	100·0

EXPORTS

Country	*Average December* 1935-39		*July*			
			1947		1948	
	Value $'000	*Per cent*	*Value* $'000	*Per cent*	*Value* $'000	*Per cent*
Albania	3	[2]	381	0·1	224	0·1
Austria	27	[2]	2,682	0·8	3,758	1·1
Azores and Madeira	8	[2]	298	0·1	186	0·1
Belgium	13,204	19·8	49,191	14·1	41,218	12·5
Bulgaria	10	[2]	21	[2]	106	[2]
Czechoslovakia	881	1·3	10,223	3·0	14,995	4·5
Denmark	1,438	2·2	3,040	0·9	6,397	1·9
Eire	3,861	5·8	14,727	4·3	12,250	3·7
Estonia	5	[2]			[1]	
Finland	539	0·8	910	0·3	2,312	0·7
France	8,566	12·9	72,891	21·2	86,960	26·3
Germany	9,639	14·5	7,394	2·1	9,474	2·9
Greece	1,142	1·7	6,432	1·9	8,398	2·5
Hungary	4	[2]	1,655	0·5	570	0·2
Italy	2,785	4·2	29,557	8·6	30,285	9·2
Latvia	242	0·4				
Lithuania	196	0·3				
Malta and Cyprus	377	0·5	4,704	1·4	4,975	1·5
Netherlands	10,062	15·1	50,242	14·6	42,889	13·0
Norway	7,247	10·9	22,551	6·6	19,635	5·9
Poland	804	1·2	21,092	6·1	7,888	2·4
Portugal	170	0·3	3,288	1·0	2,817	0·9
Roumania	52	0·1	46	[2]	370	0·1
Russia	336	0·5	5,862	1·7	602	0·2
Spain	495	0·7	1,137	0·3	720	0·3
Sweden	3,593	5·4	15,799	4·6	11,975	3·6
Switzerland	948	1·4	12,824	3·7	17,884	5·4
Yugoslavia	18	[2]	7,189	2·1	3,182	1·0
TOTAL	66,652	100·0	344,136	100·0	330,070	100·0

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[1] Less than $1,000. [2] Less than one-tenth of one per cent.

with Canadian producers. The operation of the dumping clause was suspended during the war.

GEOGRAPHICAL DISTRIBUTION OF IMPORTS AND EXPORTS

Canada's trade has always been conducted predominantly with the two great English speaking nations—the United Kingdom and the United States. In the early years after Confederation, the United Kingdom, which was then making extensive capital investments in Canada, supplied more than one-half of Canada's imports. The United States, always a close second in Canada's import trade, supplanted the United Kingdom in first place in 1876 and has maintained that position since, with the exception of the years 1880-1882 inclusive.

The United Kingdom was Canada's principal customer from 1890 to 1920. Since that time the United States has occasionally taken first place. In 1939 the United States supplied 66·2 per cent of Canada's imports and the United Kingdom 15·2 per cent. As to exports, the United Kingdom accounted for 35·5 per cent and the United States 41·1 per cent, although in the immediately previous years the percentage in the case of exports had been about reversed. Trade with other British and foreign countries, although overshadowed by the United Kingdom and the United States, has nevertheless shown a greater relative expansion in the present century. Imports from " other countries " represented in 1939, 18·6 per cent of the total as compared with 15 per cent in 1900 and exports represented 23·4 per cent as compared with 8·77 per cent. Before the outbreak of hostilities, Canada was sending her wares to all parts of the world and obtaining supplies from every country and climate.

The tables (pp. 343, 344) show Canada's Imports and Exports by countries in 1939, 1943, 1945 and 1947.

Trade Agreements at Present in Force

At the present time Canada's tariff relations with other countries are affected by trade agreements, conventions of commerce or similar arrangements made directly between Canada and the country concerned or by participation in treaties made by the United Kingdom with foreign powers, listed as follows.

EMPIRE COUNTRIES

Country	*Treaty or Convention*	*Terms*
UNITED KINGDOM	Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. Modified by an Exchange of Letters, Nov. 16, 1938 resulting from United Kingdom—United States Trade Agreement of Nov. 17, 1938. Further modified by General Agreement on Tariffs and Trade and Exchange of Notes, Oct. 30, 1947.	Various concessions by both countries, including exchange of lowest tariff rates (some reservations by Canada) and binding against increase of scheduled preferential duties. Extends also to Colonial Empire. Exchange of Notes, 1947, continues in force until Jan. 1, 1951, and thereafter until terminated on six months' notice.
EIRE	Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933.	Canada concedes British Preferential Tariff in return for most-favoured-nation treatment in Eire. Made for five years and thereafter until terminated on six months' notice.
AUSTRALIA	Trade Agreement signed July 8, 1931; in force Aug. 3, 1931. Modified by General Agreement on Tariffs and Trade.	Each country accords the other reduced rates on schedules of goods, and otherwise (with a few exceptions in Australia) exchange their British Preferential Tariffs with each other. Made for one year and thereafter until terminated on six months' notice. Preferences modified by G.A.T.T.*
NEW ZEALAND	Trade Agreement signed Apr. 23, 1932; in force May 24, 1932.	Exchange specific preference on schedules goods and otherwise concede British Preferential Tariffs reciprocally. Made for one year, but kept in force by short-term extensions. Since Sept. 30, 1941, in force until terminated on six months' notice.
UNION OF SOUTH AFRICA	Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932.	Agreement extends list of preferences formerly exchanged in absence of formal Agreement. Made for five years and thereafter until terminated on six months' notice.

* General Agreement on Tariffs and Trade.

EMPIRE COUNTRIES

Country	*Treaty or Convention*	*Terms*
British West Indies	Trade Agreement signed July 6, 1925; in force Apr. 30, 1927.	Exchange of specific margins of preferences. Made for twelve years and thereafter until terminated on one year's notice. A Canadian notice of Nov. 23, 1938, terminating the Agreement, was replaced by one of Dec. 27, 1939, continuing the Agreement subject to termination on six months' notice.

NON-EMPIRE COUNTRIES

Country	*Treaty or Convention*	*Terms*
Argentina	Trade Agreement signed Oct. 2, 1941; provisionally in force Nov. 15, 1941.	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months' notice. To come into force definitely thirty days after exchange of ratifications for two years and thereafter until terminated on six months' notice.
Benelux (Belgium, Luxembourg and Netherlands) Belgian Colonies, Surinam and Curaçao	General Agreement on Tariffs and Trade, Protocol of Provisional Application signed Oct. 30, 1947, and provisionally brought into effect Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions. In force until Jan. 1, 1951 and thereafter until terminated on six months' notice. Colonies still applying most-favoured-nation rates per agreement of 1924 but have expressed intention to make G.A.T.T.* schedules effective in 1948.
Bolivia	Order in Council of July 20, 1935, accepted Article 15 of the United Kingdom—Bolivia Treaty of Commerce of Aug. 1, 1911.	Exchange of most-favoured-nation treatment. May be terminated on one year's notice.
Brazil	Trade Agreement signed Oct. 17, 1941; provisionally in force from date of signing and definitively on Apr. 16, 1943.	Exchange of most-favoured-nation treatment. Made for two years from Apr. 16, 1943, and thereafter for one-year periods until terminated on six months' notice.
Chile	Trade Agreement signed Sept. 10, 1941; in force provisionally Oct. 15, 1941, and definitively on Oct. 29, 1943.	Exchange of most-favoured-nation treatment. Made for two years from Oct. 29, 1943, and thereafter until terminated on six months' notice.
China	Modus vivendi signed Sept. 26, 1946, in effect Sept. 28, 1946.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on three months' notice.
Columbia	Treaty of Commerce with United Kingdom of Feb. 16, 1866, applies to Canada.	Exchange of most-favoured-nation treatment. Protocol of Aug. 20, 1912, provides means for separate termination by Dominions on one year's notice. Exchange of Notes Dec. 30, 1938, continued Treaty in force until Sept. 30, 1939, and thereafter until terminated on three months' notice.
	To be replaced by Trade Agreement signed Feb. 20, 1946.	Exchange of most-favoured-nation treatment. To come into force definitively thirty days after exchange of ratifications for two years and thereafter until terminated on six months' notice.

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* General Agreement on Tariffs and Trade.

NON-EMPIRE COUNTRIES

Country	*Treaty or Convention*	*Terms*
COSTA RICA	Exchange of Notes with United Kingdom of Mar. 1-2, 1933, and Canadian Order in Council of July 20, 1935.	Exchange of most-favoured-nation treatment.
CUBA	General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Oct. 30, 1947, and provisionally brought into force Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions. In force until Jan. 1, 1951 and thereafter until terminated on six months' notice.
CZECHOSLOVAKIA	General Agreement on Tariffs and Trade, Protocol of Provisional Application signed Mar. 20, 1948 by Czechoslovakia.	Exchange of most-favoured-nation treatment including scheduled concessions. In force until Jan. 1, 1951 and thereafter until terminated on six months' notice.
DENMARK	Treaties of Peace and Commerce with United Kingdom of Feb. 13, 1660-61 and July 11, 1670, apply to Canada.	Exchange of most-favoured-nation treatment. Declaration of May 9, 1912, provides means for separate termination by Dominions on one year's notice.
DOMINICAN REPUBLIC	Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1940, and definitively Jan.22, 1941.	Exchange of most-favoured-nation treatment. Made for three years from Jan. 22, 1941, and thereafter until terminated on six months' notice.
ECUADOR	Modus vivendi by Exchange of Notes of Aug. 26, 1941; in force Oct. 1, 1941.	Exchange of most-favoured-nation treatment. Made for an indefinite period subject to termination on three months' notice.
FRANCE AND COLONIES	General Agreement on Tariffs and Trade, Protocol of Provisional Application signed Oct. 30, 1947, and provisionally brought into force Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions. In force until Jan. 1, 1951 and thereafter until terminated on six months' notice. Colonies still applying rates as per agreement of 1933 and subsequent revisions but intention expressed to make G.A.T.T.* schedules effective in 1948.
GREECE	Modus vivendi by exchange of Notes of July 28, 1947; effective Aug. 28, 1947.	Exchange of most-favoured-nation treatment. Made for a period of one year and thereafter unless terminated on three months' notice.
GUATEMALA	Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939.	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months' notice.
HAITI	Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on six months' notice.
ITALY	Italian Peace Treaty, Feb. 10, 1947. Canadian Order in Council, Feb. 24, 1948; effective Feb. 20, 1948.	For a period of eighteen months following the signing of the Italian Peace Treaty on Feb. 10, 1947, Italy is obligated to grant most-favoured-nation rates to Canada on a reciprocal basis.
LEBANON	Special Arrangement by Order in Council of Nov. 19, 1946.	Exchange of most-favoured-nation treatment.
MEXICO	Trade Agreement signed Feb. 8, 1946; in force provisionally same date. Ratifications exchanged on May 6, 1947.	Exchange of most-favoured-nation treatment. Entered into force definitively thirty days after exchange of ratifications for two years and thereafter until termination on six months' notice.

* General Agreement on Tariffs and Trade.

NON-EMPIRE COUNTRIES

Country	*Treaty or Convention*	*Terms*
Nicaragua	Trade Agreement signed Dec. 19, 1946, in force provisionally same date.	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months' notice. To come into force definitively thirty days after exchange of ratifications for one year and thereafter until terminated on six months' notice.
Norway	Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1826, applies to Canada.	Exchange of most-favoured-nation treatment. Convention of May 16, 1913, provides means for separate termination by Dominions on one year's notice.
Panama	Order in Council of July 20, 1935, accepted Article 12 of the United Kingdom-Panama Treaty of Commerce of Sept. 25, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice.
Paraguay	Exchange of Notes of May 21, 1940; in force June 21, 1940.	Canadian Intermediate Tariff exchanged for most-favoured-nation treatment in Paraguay. In force until terminated on three months' notice.
Poland	Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936.	Exchange of most-favoured-nation treatment and special reductions for limited lists of goods. Made for one year and thereafter until terminated on three months' notice.
Portugal, including Madeira, Porto Santo, and Azores	Trade Agreements Act of June 11, 1928, accepted Article 21 of the United Kingdom-Portugal Treaty of Commerce of Aug. 12, 1914; in force Oct. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice.
Salvador	Exchange of Notes of Nov. 2, 1937; in force Nov. 17, 1937.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on four months' notice.
Spain	Spanish Treaty Act of June 11, 1928, sanctioned United Kingdom-Spain Treaty of Commerce of Oct. 31, 1922 (revised Apr. 5, 1927); in force Aug. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on six months' notice.
Sweden	United Kingdom-Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice. Declaration of Nov. 27, 1911, provides means for separate termination by Dominions on one year's notice.
Switzerland	United Kingdom-Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855 applies to Canada. By exchange of Notes Liechtenstein included under terms of this agreement, effective, Aug. 21, 1947.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice. Convention of Mar. 30, 1914, provides means for separate termination by Dominions on one year's notice.
Syria	Special Arrangement by Order in Council of Nov. 19, 1946.	Exchange of most-favoured-nation treatment.
Turkey	Exchange of Notes signed Mar. 1, 1948.	Exchange of most-favoured-nation treatment. In effect for one year and thereafter until terminated on three months' notice.

NON-EMPIRE COUNTRIES

Country	*Treaty or Convention*	*Terms*
UNITED STATES	The General Agreement on Tariffs and Trade, the Protocol of Provisional Application signed Oct. 30, 1947; entered into force provisionally Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions. In force until Jan. 1, 1951 and thereafter until terminated on six months' notice. If at any time G.A.T.T.* is set aside, the Trade Agreement signed Nov. 17, 1938 is to be revived.
URUGUAY	Trade Agreement signed Aug. 12, 1936; in force May 15, 1940.	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months' notice.
VENEZUELA	Modus vivendi signed Mar. 26, 1941; in force Apr. 9, 1941.	Exchange of most-favoured-nation treatment. Made for one year subject to renewal or termination on three months' notice; renewed annually by Exchange of Notes, subject to termination on three months' notice.
YUGOSLAVIA	Trade Agreements Act of June 11, 1928, accepted Article 30 of United Kingdom-Serb-Croat-Slovene Treaty of Commerce and Navigation of May 12, 1927; in force Aug. 9, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice.

* General Agreement on Tariffs and Trade.

FOREIGN TRADE SERVICE OF THE DEPARTMENT OF TRADE AND COMMERCE

The function of the Foreign Trade Service is the maintenance and promotion of Canadian external trade. It consists of six divisions, viz. :—Trade Commissioner Service, Export Division, Import Division, Wheat and Grain Division, Commercial Relations and Foreign Tariffs Division, Industrial Development Division, and Trade Publicity Division.

The Trade Commissioner Service consists of a headquarters at Ottawa and offices in various British and foreign countries administered by Trade Commissioners. The Director has charge of the work of the Service at home and abroad. The headquarters staff includes a group of officials, in charge of area desks, who record and supply information and handle general inquiries regarding trade with particular countries or geographic areas.

Trade Commissioners promote Canada's trade by obtaining and forwarding inquiries for Canadian goods from importers in their territories to headquarters at Ottawa and to Canadian exporters; by reporting upon import requirements in their territories, the types of goods wanted, competitions to be met, methods of packing and shipping, tariffs and trade regulations affecting these goods, etc. They also assist Canadian importers who desire advice on the supply of commodities available in overseas territories, prices, packing, names of possible suppliers, etc. Trade Commissioners prepare periodic reports on trade, business and financial conditions, markets for particular commodities, and related subjects for publication in " Foreign Trade " or in pamphlet form.

A list of offices abroad is given below.

The Export Division consists of a group of commodity specialists, in direct contact with Canadian industry. They supply information and render assistance with respect to the particular commodities or groups of commodities for which they are responsible. This division includes the Export Permit Branch in order to ensure the co-ordination of its work with the issuance of export permits so long as these wartime controls remain.

The Import Division assists Canadian importers in the procurement of necessary and desirable imports. It is also responsible for shipping space for Canadian imports affected by shipping priorities still in existence, and for seeing that Canada receives its share of commodities subject to international allocation.

The Wheat and Grain Division deals with the special problems of the grain trade and milling industry, domestically as well as in foreign trade.

The Commercial Relations and Foreign Tariffs Division records and supplies information with respect to the tariffs and import regulations of British and foreign countries and prepares data necessary for the revision or negotiation of trade agreements.

The Industrial Development Division continues the Department's work in connection with the establishment of new industries and the study of new products, especially those suitable for export markets.

The Trade Publicity Division prepares and edits the " Commercial Intelligence Journal " and all other departmental publications, and is responsible for advertising programmes of the Department at home and abroad.

CANADIAN GOVERNMENT TRADE COMMISSIONERS

Argentina

Buenos Aires.—H. L. Brown, Commercial Secretary, Canadian Embassy, Bartolomé Mitre 478.

Territory includes Uruguay and Paraguay.

Buenos Aires.—W. B. McCullough, Commercial Secretary (Agricultural Specialist), Canadian Embassy, Bartolomé Mitre 478.

Australia

Sydney.—C. M. Croft. Commercial Counsellor for Canada, City Mutual Life Building, Hunter and Bligh Streets. Address for letters: Post Office Box 3952V.

Territory includes the Australian Capital Territory, New South Wales, Queensland, Northern Territory and Dependencies.

Sydney.—Dr. W. C. Hopper, Commercial Secretary for Canada (Agricultural Specialist). City Mutual Building. Hunter and Bligh Streets. Address for letters: Post Office Box 3952V.

Melbourne.—F. W. Fraser, Commercial Secretary for Canada, 83 William Street.

Territory includes States of Victoria, South Australia, Western Australia, and Tasmania.

Belgian Congo

Leopoldville.—L. H. Ausman, Canadian Government Trade Commissioner, Forescom Building. Address for letters: Boíte Postale 373.

Territory includes Angola and French Equatorial Africa.

Belgium

Brussels.—B. A. Macdonald, Commercial Secretary, Canadian Embassy, 46 rue Montoyer.

Brazil

Rio de Janeiro.—Maurice Bélanger, Commercial Secretary, Canadian Embassy, Ed. Metropóle, Avenida Presidente Wilson 165. Address for letters: Caixa Postal 2164.

Sao Paulo.—J. C. Depocas, Canadian Government Trade Commissioner, Canadian Consulate, Edificio Alois, Rua 7 de Abril 252. Address for letters: Caixa Postal 6034.

Chile

Santiago.—E. H. Maguire, Acting Commercial Secretary, Canadian Embassy, Bank of London and South American Building. Address for letters: Casilla 771.

Territory includes Bolivia.

China

Shanghai.—L. M. Cosgrave, Commercial Counsellor for Canada, 27 The Bund, Postal District (0).

Columbia

Bogotâ.—H. W. Richardson, Acting Canadian Government Trade Commissioner, Edificio Columbiana de Seguros. Address for letters: Apartado 1618. Address for air mail: Apartado Aereo 3562.

Territory includes Republic of Panama and the Canal Zone.

Cuba

Havana.—R. G. C. Smith, Commercial Secretary, Canadian Legation, Avenida de las Misiones 17. Address for letters: Apartado 1945.

Territory includes Haiti, Dominican Republic and Puerto Rico.

Egypt

Cairo.—J. M. Boyer, Canadian Government Trade Commissioner, 22 Sharia Kas rel Nil. Address for letters: Post Office Box 1770.

Territory includes the Sudan, Palestine, Cyprus, Iraq, Syria and Iran.

France

Paris.—J. P. Manion, Commercial Secretary, Canadian Embassy, 3 rue Scribe.

Territory includes Algeria, French Morocco and Tunisia.

Paris.—J. H. Tremblay, Commercial Secretary (Agricultural Specialist), Canadian Embassy, 3 rue Scribe.

Territory includes Belgium, Denmark, France and the Netherlands.

Germany

Frankfurt.—B. J. Bachand, Canadian Economic Representative, *c/o* Allied Contact Section, H.Q., EUCOM, Frankfurt, A.P.O. 757, U.S. Army.

Cable address, Canadian Frankfurt/Main.

Greece

Athens.—T. J. Monty, Commercial Secretary, Canadian Embassy, 31 Vassilissis Sophias Avenue.

Territory includes Turkey.

Guatemala

Guatemala City.—C. B. Birkett, Canadian Government Trade Commissioner, Post Office Box 400.

Territory includes Costa Rica, El Salvador, Honduras and Nicaragua.

Hong Kong

Hong Kong.—K. F. Noble, Canadian Government Trade Commissioner, Hong Kong Bank Building. Address for letters: Post Office Box 126.

Territory includes South China, the Phillippine Islands and French Indo-China.

India

New Delhi.—Richard Grew, Commercial Secretary, Office of the High Commissioner for Canada, Post Office Box 11.

Bombay.—C. R. Gallow, Commercial Secretary for Canada, Gresham Assurance House, Mint Road. Address for letters: Post Office Box 886.

Territory includes Burma and Ceylon.

Ireland

Dublin.—H. L. E. Priestman, Commercial Secretary for Canada, 66 Upper O'Connell Street.

Belfast.—H. L. E. Priestman, Canadian Government Trade Commissioner, 36 Victoria Square.

Italy

Rome.—A. P. Bissonnet, Acting Commercial Secretary, Canadian Legation, via Saverio Mercadante 15-17. Address for letters: Casella Postale 475.

Territory includes Malta, Yugoslavia and Libya.

Jamaica

Kingston.—R. V. N. Gordon, Acting Canadian Government Trade Commissioner, Canadian Bank of Commerce Chambers. Address for letters: Post Office Box 225.

Territory includes the Bahamas and British Honduras.

Mexico

Mexico City.—D. S. Cole, Commercial Counsellor, Canadian Embassy, Edificio Internacional, Paseo de la Reforma. Address for letters: Apartado Num. 126-Bis.

Netherlands

The Hague.—J. A. Langley, Commercial Counsellor, Canadian Embassy, Sophialaan 1-A.

Newfoundland

St. John's.—R. Campbell Smith, Commercial Secretary Office of the High Commissioner for Canada, Circular Road.

New Zealand

Wellington.—P. V. McLane, Commercial Secretary, Office of the High Commissioner for Canada, Post Office Box 1660.

Territory includes Fiji and Western Samoa.

Norway

Oslo.—S. G. MacDonald, Commercial Secretary, Canadian Legation, Fridtjof Nansens Plass 5.

Territory includes Denmark and Greenland.

Pakistan

Karachi.—G. A. Browne, Acting Canadian Government Trade Commissioner, The Cotton Exchange, McLeod Road. Address for letters: Post Office Box 531.

Territory includes Afghanistan.

Peru

Lima.—C. J. Van Tighem, Commercial Secretary, Canadian Embassy, Edificio Boza, Carabaya 831, Plaza San Martin. Address for letters: Casilla 1212.

Territory includes Ecuador.

Portugal

Lisbon.—L. S. Glass, Canadian Government Trade Commissioner, Canadian Consulate General, Rua Rodrigo da Fonseca 103.

Territory includes the Azores and Madeira, Spain, Spanish Morocco, the Canary Islands and Gibraltar.

Singapore

Singapore.—Paul Sykes, Canadian Government Trade Commissioner, Room D-2, Union Building. Address for letters: Post Office Box 845.

Territory includes Federation of Malaya, North Borneo, Brunei, Sarawak, Siam and Netherlands East Indies.

South Africa

Johannesburg.—S. V. Allen, Commercial Secretary for Canada, Mutual Buildings, Harrison Street. Address for letters: Post Office Box 715.

Territory includes Transvaal, Natal, Southern Rhodesia, Northern Rhodesia, Mozambique or Portuguese East Africa, Kenya, Nyasaland, Tanganyika and Uganda.

Cable address, Cantracom.

Cape Town.—S. G. Tregaskes, Acting Commercial Secretary for Canada, New South African Mutual Buildings, 21 Parliament Street. Address for letters: Post Office Box 683.

Territory includes Cape Province, Orange Free State, South-West Africa, Mauritius and Madagascar.

Cable Address, Cantracom.

Sweden

Stockholm.—F. H. Palmer, Commercial Counsellor, Canadian Legation, Strandvägen 7-C. Address for letters: Post Office Box 14042.

Territory includes Finland.

Switzerland

Berne.—Yves Lamontagne, Commercial Counsellor, Canadian Legation, Thumstrasse 95.

Territory includes Austria, Czechoslovakia and Hungary.

Trinidad

Port-of-Spain.—A. W. Evans, Acting Canadian Government Trade Commissioner, Colonial Life Insurance Building. Address for letters: Post Office Box 125.

Territory includes Barbados, Windward and Leeward Islands, British Guiana, Dutch Guiana, French Guiana, and the French West Indies.

United Kingdom

London.—A. E. Bryan, Commercial Counsellor, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Cable address, Sleighing, London.

London.—R. P. Bower, Commercial Secretary, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Territory includes the South of England, East Anglia and British West Africa (Gold Coast, Sierra Leone and Nigeria).

Cable address, Sleighing, London.

London.—W. B. Gornall, Commercial Secretary (Agricultural Specialist), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Cable address, Cantracom, London.

London.—R. D. Roe, Commercial Secretary (Timber Specialist), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Cable address, Timcom, London.

Liverpool.—M. J. Vechsler, Canadian Government Trade Commissioner, Martins Bank Building, Water Street.

Territory includes the Midlands, North of England and Wales.

Glasgow.—G. F. G. Hughes, Acting Canadian Government Trade Commissioner, 200 St. Vincent Street.

Territory covers Scotland and Iceland.

Cable address, Cantracom.

United States

Washington.—J. H. English, Commercial Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W.

Washington.—G. F. Paterson, Agricultural Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W.

New York City.—M. T. Stewart, Canadian Government Trade Commissioner, British Empire Building, Rockefeller Centre.

Territory includes Bermuda.

Cable address, Cantracom.

Chicago.—Edmond Turcotte, Consul-General for Canada, Suite 800, Chicago Daily News Building, 400 West Madison Street.

Los Angeles.—V. E. Duclos, Canadian Government Trade Commissioner, Associated Realty Building. 510 West Sixth Street.

Venezuela

Caracas.—C. S. Bissett, Canadian Government Trade Commissioner. Address for letters: Canadian Consulate General, 8° Piso, Edificio America, Esq. Veroes.

Territory includes Netherlands West Indies.

THE CANADIAN MARKET

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IN approaching a study of the Canadian market perhaps the most important factors to be considered are the high level of the national income, the distribution of population, the seasonal changes of climate, the great distances between market areas, and the different characteristics of these market areas, consisting of the Maritime Provinces, Quebec, Ontario, the Prairie Provinces and British Columbia.

In the more populated areas there is a wide seasonal range of temperatures. In summer these range from 70 to 100 degrees Fahrenheit, according to location and in winter, ice closes the whole inland waterway system, including the harbours of Montreal and Quebec. Temperatures at this time of year range from the freezing point to far below zero.

Out of the total population of over eleven and a half million more than one million are concentrated in Montreal and vicinity. There are almost as many again in the area of greater Toronto.

By way of illustration, to give point to the relative importance of these factors, from Halifax, N.S. to Vancouver, B.C. it is approximately 3,500 miles. This represents four and a half days travel by train or 17½ hours by air.

These examples are included here solely for the purpose of indicating that the Canadian market has distinct and unusual characteristics. Appreciation of the nature and causes of these is prerequisite to any successful approach to the market itself.

To bring out the characteristics of the Canadian market, the study of the subject has been broken down under the following headings.

NATIONAL INCOME

In 1945 Canada's net national income totalled $9·5 billion as compared with $9·9 billion in 1944. This drop indicates the decline in government expenditures following termination of full scale war production. However, the 1945 level of national income was still up 97 per cent from 1938, and 47 per cent from 1941. National income increased from $9·6 million in 1946 to $10·7 million in 1947, an increase of 11·6 per cent.

NET NATIONAL INCOME OF FACTOR COST AND GROSS NATIONAL PRODUCT OF MARKET PRICES, 1938–46

(Millions of Dollars)

Item	1938	1939	1940	1941	1942	1943	1944	1945	1946[1]
Salaries, wages and supplementary labour income	2,476	2,565	2,922	3,555	4,219	4,703	4,869	4,859	5,113
Military pay and allowances	9	32	193	386	641	910	1,068	1,132	315
Investment income	687	776	1,120	1,480	1,717	1,723	1,755	1,911	1,885
Net income of agriculture and other incorporated business	800	901	1,001	1,123	1,696	1,605	1,904	1,742	2,151
Net National Income at Factor Cost	3,972	4,274	5,236	6,544	8,273	8,941	9,596	9,644	9,464
Indirect taxes less subsidies	630	726	826	1,048	1,073	1,126	1,123	1,000	1,204
Depreciation allowances and similar business costs[2]	560	582	655	755	900	929	881	792	803
Residual error of estimate for reconciliation with following table	−21	−1	+23	+56	+241	+248	+220	+178	−54
Gross National Product at Market Prices ..	5,141	5,581	6,740	8,403	10,487	11,244	11,820	11,614	11,417

[1] Preliminary. [2] Includes an estimate of " capital outlay charged to current account," which has also been included under " Gross home investment in plant, equipment and housing " in the table on page 222, Official Handbook, Canada, 1948.

NOTE.—The above table taken from the Official Handbook, Canada, 1948.

GROSS NATIONAL EXPENDITURE OF MARKET PRICES, 1938–46

(Millions of Dollars)

Item	1938	1939	1940	1941	1942	1943	1944	1945	1946[1]
Personal expenditure on consumer goods and services	3,714	3,817	4,334	4,979	5,508	5,822	6,235	6,782	7,495
Government Expenditure—War—Goods and services, excluding Mutual Aid, etc.	36	70	549	1,129	2,222	3,096	3,410	1,876	672
War—Mutual Aid UNRRA and Military Relief	Nil	Nil	Nil	Nil	1,002	518	960	1,041	187
Non-war	685	690	633	647	661	685	735	841	974
Gross Home Investment—Plant, equipment and housing[2]	576	554	713	995	931	828	756	865	1,241
Inventories[3]	7	329	368	218	333	−42	−83	−294	475
Exports of Goods and services[4]	1,359	1,449	1,792	2,458	2,347	3,443	3,566	3,576	3,170
Imports of Goods and services	−1,257	−1,328	−1,626	−1,967	−2,275	−2,858	−3,539	−2,895	−2,850
Residual error of estimate for reconciliation with preceding table	+21	Nil	−23	−56	−242	−248	−220	−178	+53
Gross National Expenditure at Market Prices	5,141	5,581	6,740	8,403	10,487	11,244	11,820	11,614	11,417

[1] Preliminary. [2] See footnote 2 of preceding table. [3] Includes grain held by the Canadian Wheat Board. [4] Excludes Mutual Aid, UNRRA and Military Relief.

NOTE.—The above table taken from the Official Handbook, Canada, 1948.

CANADIAN BALANCE OF INTERNATIONAL PAYMENTS

Immediately after the war Canada engaged in a foreign lending programme amounting in all to about $2 billion, use of which spread out over the years 1945, 1946 and 1947. Canada has been regarded as a debtor country and not a creditor. However, by 1948 Canada remains a net debtor on international account only in relation to the United States, as illustrated in the following table from the Annual Report of the Foreign Exchange Control Board.

SUMMARY OF CANADA'S INTERNATIONAL ACCOUNTS—1947

(Millions of Canadian Dollars)

	All Countries	United Kingdom and Sterling Area	Other Overseas Countries	United States
CURRENT ACCOUNT				
Current Balance (Including Official Relief)	+85	+872	+351	−1,138
Contributions of Official Relief	−38	Nil	−38	Nil
Current Balance (Excluding Official Relief)	+47	+872	+313	−1,138
CAPITAL ACCOUNT				
Loan to the U.K. and Net Export Credits	−563	−423	−140	Nil
Other Capital Movements[1]	−154	+53	−44	−162[2]
Gold Subscription to International Monetary Fund	−74	Nil	Nil	−74[3]
Net Receipts or Convertible Exchange	Nil	−505	−133	638
Balancing Item[4]	+1	+3	+4	−6
Net Deficiency (Total of Above Current and Capital Account Items)	−743	—	—	−743
Use of Official Reserves to cover Net Deficiency	+743	—	—	+743

[1] Including currency adjustments and changes in non-resident balances in Canada, but excluding change in official liquid reserves. [2] Including some capital transactions on account of "other overseas countries." [3] Although it does not represent a transaction with the United States, the gold subscription to the International Monetary Fund is included in the United States account. [4] The balance item reflects errors and omissions.

There has been a striking change in the position relative to the United Kingdom. In 1939 British investors held in investments something under $2½ billion in Canada and there was no significant offset by way of Canadian investments overseas. During the war, out of the proceeds of sale of Canadian exports to the United Kingdom, about a billion dollars worth of securities were repurchased, chiefly Dominion Government and Canadian National Railway Bonds. With the exhaustion of her postwar loans to the United Kingdom, Canadian claims on the United Kingdom will roughly equal the value of latter's remaining investments in Canada.

The relationship of internal trade to external trade is of interest. Canada's total external trade in 1944 (excluding gold which is omitted in line with the procedure in other countries) achieved a record value of $5,242,000,000, better than three times the total in 1939.

Total exports of domestic products in 1944 amounted to $3,440,000,000. Value of imports for the same period were $1,758,900,000. The 1944 national income arising from productive operations in Canada was estimated at $12,500,000,000. The high ratio of exports is a direct result of the war at the end of which Canada was the second largest exporting nation in the world.

The readjustment from this abnormal position is now well under way and the necessity of an expanding volume of two-way trade is being actively promoted by the Dominion Government.

INTERNAL TRADE

The diverse resources of the various parts of the country necessitates a vast exchange of products and the job of providing goods and services to meet the requirements of a population of approximately 12,000,000, very unequally distributed over half a continent, accounts for a perhaps relatively unusual expenditure of economic effort especially in the field of transportation and distribution of goods within the country through the medium of railways, steamships, warehouses, wholesale and retail trades and other agencies.

Wholesale Trade and Employment

Results of the Census of Merchandising and Service Establishments for 1941, which is taken every ten years, show that wholesale firms required the services of 94,627 male and 22,844 female employees to whom $189,449,100 were paid in salaries and wages. In addition there were 13,656 proprietors actively engaged. There was a total of 24,758 wholesale trading establishments or agencies with annual sale of $5,290,750,500 of which $4,278,341,500 represented the sale of goods on own account while the remaining $1,012,409,000 represented sales made on commission for others.

These figures summarise the activities of wholesale firms differing widely not only in the commodities handled but also in the services or functions performed. Duplications appear in the total sales figures, some types of wholesalers transacting business with other types. The totals include 9,417 establishments classified as wholesalers proper and consisting mainly of regular wholesale merchants engaged in servicing the retail trades. Their sales figures were $2,358,475,300. The remainder of the establishments are comprised of such types of business as agents and brokers, grain elevators and other assemblers of farm products, sales offices maintained by manufacturers at locations apart from the plant, and the bulk tank stations operated by the wholesale distributors of petroleum products.

Retail Trade and Employment

The final stage in the distribution of consumer goods is effected through a great number of retail stores ranging in size from small shops, whose daily takings are small, to large enterprises, whose annual sales are reckoned in millions of dollars. According to the Census of Merchandising for 1941 there was a total of 137,331 retail stores with $3,440,901,700 sales, an increase of 24·9 per cent over the volume of business transacted in 1930, the only other year for which complete details are available.

Retail trading employed 297,047 full time employees in 1941 of whom 188,658 were male and 108,389 were female and to whom $289,379,500 was paid in salaries and wages. There were also 95,561 part time employees who received $25,058,000. Finally there were 131,823 proprietor workers engaged in their own stores.

Sales on the instalment plan amounting to $13,233,400 accounted for about 9 per cent of the total volume of retail business. Customers' accounts owing to retail merchants, representing accounts outstanding not only on instalment sales but also on open account and charge purchases, amounted to $240,269,200 at the end of 1941.

Large Scale Merchandising

Two main lines of growth mark the development of large scale merchandising in Canada. In the first instance, there has been the development of large individual establishments, chiefly of the Department Store type, and associated in some cases with extensive mail order business. Secondly, there has been the rapid expansion in the chain store type of distribution which was most noticeable in the nineteen thirties.

Department stores, including the mail order business transacted by these firms, had sales of $377,806,000 in 1941 representing 11 per cent of Canada's total retail trade. There were 532 chain store companies (firms with four or more stores) in the census year and these operated a total of 8,011 stores with $642,999,500 sales or 18·7 per cent of the total volume of retail business. 29·7 per cent of the total retail trade was transacted by chains and department stores together, while the vast number of smaller independent stores accounted for the remaining 70·3 per cent.

During recent years annual surveys of retail chains show a reduction in the number of chain companies and chain outlets.

Current Trends

During recent years two opposing factors have influenced strongly the trend in consumer expenditures in retail stores. Acting as a stimulant to consumer purchasing has been the increased purchasing power in the hands of the public resulting from high employment levels. Payments of monthly allowances to dependants of members of the Armed Forces and, in more recent months, payments of gratuities and the institution of family allowances constitute other factors acting in the same direction.

On the other hand, by taxation or government borrowing, large portions of the country's purchasing power have been removed from circulation. However, it is significant that there has been a marked increase during the war in the volume of notes and currency circulating in the hands of the public and available for business purposes and consumer expenditures. In 1933 the figure was $178,470,000; by 1941 it had risen to $492,100,000 and in 1944 it stood at $990,100,000.

The curtailed production of such durable goods as automobiles, radios and household electrical appliances affected adversely the types of retail stores dealing in these commodities. Notable increases in the business of stores specialising in these items is anticipated when normal peacetime production is restored.

Revised estimates of retail sales for 1942 and 1943 show that sales in those two years stood at 5·6 per cent and 9·1 per cent, respectively, above the level of the census year. Figures for 1944 reveal a further increase of 8·1 per cent above 1943 and those for 1945 average about 10 per cent above those of 1944. This trend has continued in 1946, 1947 and 1948.

Furniture stores, hardware stores, and jewellery stores have recorded increases considerably in excess of this average and there have been substantial gains for radio and electrical speciality shops in recent months, due to an improved supply position.

Retail Services

In addition to the more than 137,000 retail merchandise stores in operation in 1941, there were 49,271 service establishments, whose total receipts were $254,677,900 in the census year. The wide range of establishments of various types covered by these figures were located generally in the retail marketing sections of urban areas and their revenue represents receipts from services rendered rather than from the sale of merchandise. Professional services, transportation services, and services related directly to the building trades, masonry, plumbing, etc., are excluded.

Enterprises providing amusement and personal services of various kinds account for a large proportion of the total. Within the personal services group are 14,529 barber shops, beauty parlours, or combined barber shops and beauty parlours with total receipts of $30,563,900. Within the amusement group are 1,244 motion picture theatres with box office receipts (exclusive of taxes) amounting to $41,368,800. A further expansion in motion picture theatre attendance and receipts is disclosed by figures for 1942, 1943 and 1944. Paid admissions totalled 208,167,180 in 1944 and box office receipts, exclusive of amusement taxes, amounted to $53,173,325. Dominion and provincial amusement taxes at motion picture theatres amounted to an additional $13,555,730.

Co-operative Associations

An important position is occupied by co-operative business organisations in Canada, chiefly in the marketing of agricultural products, purchasing of farm supplies, and in operating co-operative stores. For the year ended July 31, 1944, in comparison with 1943, the value of grain marketing increased from $134,000,000 to $264,000,000; live stock from $63,000,000 to $82,000,000; dairy products from $44,000,000 to $52,500,000; fruits and vegetables from $19,500,000 to $21,000,000 and poultry and eggs from $11,000,000 to $15,000,000. According to reports received in 1944, shareholders and members financially interested numbered 690,967 and total business exceeded $525,000,000. The members' equity amounted to $72,491,538 consisting of paid up share capital of $15,608,150 and reserves and surplus of $56,883,388. From 1943 to 1944 total working capital increased from $25,000,000 to $31,500,000.

Early expansion of co-operative activity in Canada occurred most rapidly and to the greatest degree in the marketing of farm products. In recent years the purchasing of farm supplies and household needs on a co-operative plan has shown a marked increase resulting from the establishment of co-operative wholesalers in nearly every province.

Combines Investigation Act

The Combines Investigation Act empowers investigation of trade combinations and monopolies alleged to have operated in restraint of trade and to the detriment of the public. The Act defines as combines organisations or commercial arrangements of this class which operate to the detriment of the public interest by enhancing prices, fixing common prices, restricting competition, limiting production or otherwise restraining or attempting to restrain trade. Participation in the formation or in the operation of a combine is an indictable offence, subject to penalties up to $25,000 or two years' imprisonment. Prosecutions for alleged offences may be undertaken at the instance of the Attorney-General of a province or the Attorney-General of Canada. Provisions against similar offences are contained in the Criminal Code of Canada.

Investigations of alleged combines are carried out under the direction of a Combines Investigation Commissioner. The Act provides for publication of reports of such investigations and for prosecution when a combine is found to exist. During the war the fields of trade to which the Combines Investigation Act normally applied were largely controlled both as to price and supplies by Wartime Prices and Trade Board and other Government wartime agencies. As these wartime controls of prices and supplies are progressively removed, the Combines Investigation Act, in providing against undue restrictions of trade, will be of increasing importance.

ANALYSIS OF IMPORT REQUIREMENTS

Since Confederation in 1867 the records of Canadian trade have emphasised the importance of trade relationships with the United Kingdom and the United States. Today, although in Canadian foreign commerce these two countries still predominate, Canada is increasingly aware of her position as a World Trader.

Imports into Canada by Leading Countries

From 1936 to 1939 Canadian imports increased 50 per cent over the preceding five year period. This trend is continuing and statistics for 1947 show imports of $2,573,944,125 and $811,985,331 for the first four months of 1948, as compared with $751,055,534 in 1939 and $508,371,172 for the first four months of 1945.

	Six Month	Six Month	Twelve Month	Rank Six Month	Rank
	1947	1946	1939	1947	1939
	(Millions of Dollars)				
United States ..	980·9	618·4	496·8	1	1
United Kingdom ..	84·6	110·9	114·0	2	2
British India ..	19·3	15·1	9·8	3	5
Venezuela	18·6	11·0	1·9	4	26
British Malaya ..	10·0	1·0	—	5	—
Argentina	9·7	2·9	4·4	6	12
Australia	7·5	8·5	11·2	7	4
Mexico	7·0	10·6	·5	8	41
Cuba	6·9	7·1	·9	9	31
New Zealand ..	6·8	4·8	4·2	10	14
Brazil	6·4	7·7	1·1	11	29
Switzerland ..	6·0	3·9	3·5	12	19
Belgium	5·7	1·5	6·8	13	8
Columbia	5·6	5·2	5·4	14	10
Ceylon	5·3	2·1	3·6	15	18
Gold Coast	4·9	2·3	·2	16	48
Barbados	4·6	1·9	3·9	17	16
Norway	4·5	·1	·7	18	33
Honduras	4·5	8·5	—	19	—

	Six Month	Six Month	Twelve Month	Rank	Rank
	1947	1946	1939	1947	1939
	(Millions of Dollars)				
Guatemala	4·4	2·2	·1	20	55
Philippine Islands ..	4·3	·1	·3	21	40
France	4·3	·9	5·9	22	9
Trinidad and Tobago	2·8	1·2	2·7	23	22
British Guiana ..	2·8	3·6	6·9	24	7
San Domingo ..	2·6	3·5	—	25	—
Netherlands West Indies	2·4	1·2	·3	26	46
Turkey	2·3	·5	—	27	—
British East Africa	2·3	1·6	2·6	28	23
Italy..	2·0	·7	2·5	29	24
Czechoslovakia ..	1·9	·1	2·0	30	27
Newfoundland ..	1·8	3·4	1·9	31	28
Spain	1·7	2·8	·7	32	35
China	1·7	1·3	2·8	33	21
Panama	1·7	·1	—	34	—
Fiji	1·7	1·9	2·8	35	20
Nigeria	1·6	3·6	—	36	—
Netherlands ..	1·6	·9	3·5	37	—
Jamaica	1·6	5·7	4·3	38	13
Sweden	1·5	1·9	2·3	39	25
South Africa ..	1·2	4·8	4·0	40	15
Salvador	1·2	2·0	—	41	—
TOTAL BRITISH COUNTRIES ..	160·5	174·7	188·9		
TOTAL FOREIGN COUNTRIES ..	1,096·3	705·1	562·1		
GRAND TOTAL ..	1,256·8	879·8	751·0		

Canadian imports for statistical purposes are divided into the following main groups:—

Agriculture and Vegetable Products; Animal and Animal Products; Fibres, Textiles and Textile Products; Wood, Wood Products and Paper; Iron and its products; Non-Ferrous Metals and Products; Metallic Minerals and Products; Chemicals and Allied Products; Miscellaneous Commodities.

Increases were recorded by all the commodity groups for the first half of 1946, compared with the corresponding period for 1945 with the exception of Non-Ferrous Metals and their Products.

Figures indicating imports in the respective groups for the six months ended June 30th, 1947, as compared with the corresponding figures for 1946 and with those for twelve months of 1939 are shown below:—

IMPORTS BY COMMODITY GROUPS

	Six Month	Six Month	Twelve Month
	1947	1946	1939
	(Millions of Dollars)		
Agriculture and Vegetable Products	173·6	151·4	127·8
Animal and Products ..	47·2	30·9	32·7
Fibres and Textiles ..	220·3	118·2	100·9
Wood and Paper	45·3	33·4	33·7
Iron and Products ..	362·4	209·8	183·2
Non-Ferrous Metals ..	78·9	52·4	42·1
Non-Metallic Minerals ..	191·6	137·3	132·8
Chemicals and Products ..	58·0	46·8	43·7
Miscellaneous Products ..	79·5	99·6	54·1
TOTAL	1,256·8	879·8	751·0

The principal items in Canadian imports of Agriculture and Vegetable products are: Fresh, dried and canned fruits; nuts; vegetables; beans; corn; oats; sugar; cocoa and chocolate; coffee; tea; vegetable oils (non-edible); raw rubber; brandy; gin; wines; gums and resins; rice; hops; raw tobacco; whisky; broom corn and olive oil.

In the Animals and Animal products the principal items of import are: horses; fish; furs; bone; ivory and shell products; animal bristles; hides and skins; manufactured and unmanufactured leather; lard; fish oils and edible gelatine.

Under the textile group the principal items imported are: raw cotton; raw wool; wool carpets; hemp, dressed or undressed; cotton yarn and fabrics; flax, hemp and jute yarns and fabrics; linen fabrics; cotton and linen handkerchiefs; wool yarns and piece goods; sisal fibre; binder twine; oilcloth; artificial silk fabrics; raw silk; linen thread and Manila fibre.

Chief items of import under wood and paper products

ANALYSIS OF PRE-WAR IMPORTS
IMPORTS FOR CONSUMPTION, 1939

Groups and Sub-Groups	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
Agricultural and Vegetable Products:			
A. Mainly Food	37,352,197	20,852,973	28,229,490
B. Other Than Food	18,463,053	8,373,947	14,563,386
Animal and Animal Products	17,061,249	6,758,225	8,938,192
Fibres, Textiles and Textile Products	30,031,935	8,908,618	61,925,525
Wood, Wood Products and Paper	838,203	5,245,081	27,619,865
Iron and its Products	4,179,353	2,962,268	176,018,029
Non-Ferrous Metals and Their Products	5,328,294	6,027,677	30,752,403
Non-Metallic Minerals and Their Products	87,577,447	5,319,953	39,926,492
Chemicals and Allied Products	2,515	1,148,575	42,554,815
Miscellaneous Commodities	Nil	Nil	54,095,674
GRAND TOTAL ..	200,834,246	65,597,317	484,623,871

are: lumber; woodpulp; cork and its manufactures; books and printed matter.

Iron and its products, the largest group of imports, comprise the following leading imports: rolling-mill products; pipes and tubes; chains; Diesel engines; farm implements; stamped and coated products; tools; automobiles and parts; railway car parts; stoves, machinery and hardware.

The leading imports of non-ferrous metals and products group are: aluminium (chiefly bauxite); brass; copper; tin in blocks; zinc; alloys; clocks and watches; electric apparatus; gas apparatus; manganese oxide; precious metals; ores n.o.p. and printing materials.

Leading items under non-metallic group are: asbestos; clay and products (tableware and china); coal; glass; crude petroleum; lubricating oils; stone and products; diamonds, unset; carbons, salt and sulphur.

Under chemicals and allied products group the following are the principal items of import: acids; dyeing and tanning materials; fertilisers; paints; soap; sodium compounds; potassium compounds; drugs and medicine and cellulose products.

WHOLESALE PRICE GROUPS (1926=100)

	General Wholesale Price	Consumers' Goods	Producers' Goods	Building Material	Raw and Partly Manufactured	Fully and Chiefly Manufactured	Industrial Materials
1926	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1929	95·6	94·7	96·1	99·0	97·5	93·0	91·8
1933	67·1	71·1	63·1	78·3	56·6	70·2	54·1
1935–39 average	77·1	76·2	74·8	87·9	72·3	76·1	69·1
1939	75·4	75·9	70·4	89·7	67·5	75·3	69·0
1940	82·9	83·4	78·7	95·6	75·3	81·5	79·0
1941	90·0	91·1	83·6	107·3	81·8	88·8	87·3
1942	95·6	95·6	88·3	115·2	90·1	91·9	94·2
1943	100·0	97·0	95·1	121·2	99·1	93·1	97·6
1944	102·5	97·4	99·9	127·3	104·0	93·6	99·8
1945	103·6	98·1	100·7	127·3	105·6	94·0	99·8
1946	108·7	101·1	105·7	134·8	109·5	98·8	103·6
1947	129·1	117·3	129·3	166·4	130·7	117·4	130·4
1939 August	72·3	72·7	66·7	90·2	62·8	72·6	65·3
1945 December	103·9	98·4	101·1	127·3	106·0	94·3	99·6
1946 December	112·0	103·1	108·9	141·7	113·6	101·7	106·4
1947—April	123·3	111·6	123·9	152·4	126·0	112·2	126·7
May	125·7	113·9	126·1	161·1	128·4	114·1	128·0
June	128·0	116·7	128·9	164·6	129·7	115·8	131·6
July	129·1	117·7	129·7	165·5	131·2	116·2	131·6
August	130·8	119·0	131·6	167·6	133·2	117·2	131·4
September	134·0	121·8	135·3	171·1	133·6	123·3	135·3
October	139·3	124·8	139·8	185·3	138·9	127·6	141·0
November	142·5	130·1	142·4	186·9	142·5	131·4	143·2
December	143·5	131·2	143·4	189·2	145·2	132·0	144·7
1948—January	146·9	135·2	145·8	187·8	148·3	136·5	148·4
February	147·3	136·7	145·4	187·9	147·2	137·2	146·3
March	146·9	137·3	144·9	186·2	147·3	136·7	144·9
April	148·5	137·9	146·8	187·4	150·0	137·4	149·5

The principal items of the miscellaneous group are: amusement and sporting; mineral waters; musical instruments; scientific instruments; ships and vessels; works of art and precious stones.

PRICE LEVELS

Wholesale Prices

Wholesale prices, as evidenced in the above table, increased sharply following the outbreak of war until 1943. The levelling off in 1944 and 1945 has given way to a further rapid rise and inflationary tendencies continue to exert strong pressure on Canadian price levels.

Although these figures present a marked contrast to the precipitous rise during 1919 and 1920 after the first World War, those inflationary prices had dwindled by the summer of 1920. Today however the threat of inflation continues. Through a system of price control the Government is endeavouring to protect the economy from its full effects until production and competition have reached a point where the free play of supply and demand will largely eliminate the hazard of inflation.

Price Control

In December, 1941, as a war measure, a general price ceiling was established under the administration of the Wartime Prices and Trade Board. A "basic period," September 15 to October 11, 1941, was announced and the prices of most commodities and the more important services were frozen at the levels prevailing in the period. Where the prices of certain commodities exempted from the ceiling tended to rise unduly and the goods were important, maximum prices were later established (e.g., the more important fresh fruits and vegetables). To avoid confusion and simplify enforcement, specific maximum prices were set for some goods, especially foods. These prices were usually set at the wholesale level and eliminated the individual ceilings based on each sellers' "basic period" prices. Allowances adjusted regional differences. Retail mark-ups were regulated and in some instances specific retail prices were set.

The administration of price control in accordance with the basic period principle involved, in addition to the stabilisation of prices, the maintenance, as far as practicable, of the same price-quality relationships and the same proportionate volume of production in each price range as in the basic period. It included also the fair distribution of scarce goods between the various regions and between different dealers. With the freezing of prices the natural balancing of supply and demand was destroyed. Consequently, closely linked to price control, was control over supply and distribution, such as rationing, the allocation of raw materials and, when required, the direction of production and the simplification of products. Similarly, rent control necessitated the protection of tenants against arbitrary eviction.

Wartime increases in costs and the general pressure of expanding buying power gave rise to many problems in the administration of price control. The impact of higher costs was absorbed to a large extent by producers, importers and distributors. The higher volume of sales in some businesses and effective reduction of costs in others, assisted in lessening the "squeeze." However, where no relief was in sight and when a continued supply of the commodity concerned was necessary, subsidies were paid, or, in some instances, ceiling prices were raised.

In establishing prices for goods not sold during the basic period the price was determined at which these goods would have sold in the basic period rather than their actual cost of production. When a price so determined did not cover current costs of production the problem was dealt with in the same way as any other arising out of higher cost.

Reconversion raised difficult problems of pricing for the type of goods, such as household appliances and automobiles, which had not been produced in volume for several years. It was claimed by some reconverting manufacturers that without some concessions they could not afford to produce at 1941 prices, owing to wartime increases in the costs of labour and materials, together with increases in overhead costs resulting from the reduction in total volume subsequent to cancellation of war orders.

Lacking recent production experience as a basis on which to estimate costs, it was impossible to determine conclusively the extent to which various manufacturers would be subject to financial difficulty at 1941 prices, furthermore there was no way of accurately determining prospective volume. In addition, due to war-time conditions, labour and material costs had in some respects been temporarily inflated as a result of overtime, high labour turnover, the use of inexperienced help, and of less satisfactory substitutes for materials in short supply.

Under the circumstances it appeared unwise to risk delaying reconversion by spending the length of time required for detailed surveys and estimates to be carried out in order to treat individually the vast number of commodities and components involved.

In May, 1945, the pressure on prices was greatly eased by the removal of the special excise tax of 35 per cent on electrical and gas household appliances and the reduction of the tax in the case of passenger cars, radios, phonographs and cameras. Also removed was the war exchange tax on imports from the United States and the 8 per cent sales tax on building materials and machinery and equipment used in production. These taxes had been imposed before the basic period and in their removal gave manufacturers in general an appreciable clearance in meeting higher costs without changing basic-period prices.

Since the war, the policy of the Wartime Prices and Trade Board has been the progressive elimination of price control.

COST OF LIVING INDEXES (1935–39=100)

	Total Index	Food Index	Rent Index	Fuel and Lighting Index	Clothing Index	Home Furnishings and Services Index	Miscellaneous Index
1939	101·5	100·6	103·8	101·2	100·7	101·4	101·4
1940	105·6	105·6	106·3	107·1	109·2	107·2	102·3
1941	111·7	116·1	109·4	110·3	116·1	113·8	105·1
1942	117·0	127·2	111·3	112·8	120·0	117·9	107·1
1943	118·4	130·7	111·5	112·9	120·5	118·0	108·0
1944	118·9	131·3	111·9	110·6	121·5	118·4	108·9
1945	119·5	133·0	112·1	107·0	122·1	119·0	109·4
1946	123·6	140·4	112·7	107·4	126·3	124·5	112·6
1947	135·5	159·5	116·7	115·9	143·9	141·6	117·0
1939—August 1	100·8	99·3	103·8	99·0	100·1	100·9	101·3
1941—October 1	115·5	123·2	111·2	112·1	119·6	117·3	106·5
1945—December 1	120·1	134·3	112·3	107·1	122·5	119·5	109·6
1946—December 2	127·1	146·4	113·4	109·2	131·2	129·4	114·1
1947—April 1	130·6	151·6	113·4	109·1	136·9	137·2	116·3
May 1	133·1	154·9	115·4	116·2	140·0	138·6	116·8
June 2	134·9	157·7	117·8	116·7	142·4	139·8	117·1
July 2	135·9	159·8	117·8	117·3	143·2	142·5	117·2
August 1	136·6	160·6	117·8	118·6	145·5	143·7	117·2
September 2	139·4	165·3	117·8	121·1	152·0	147·4	117·5
October 1	142·2	171·3	119·9	121·9	154·2	149·9	117·6
November 1	143·6	173·6	119·9	122·6	157·0	151·4	118·2
December 1	146·0	178·7	119·9	120·3	159·3	154·9	119·8
1948—January 2	148·3	182·2	119·9	120·4	161·2	158·4	122·6
February 2	150·1	186·1	119·9	120·1	165·1	159·9	122·8
March 1	150·8	185·9	119·9	121·0	169·9	161·2	122·8
April 1	151·6	186·8	119·9	121·3	172·9	161·9	122·9

Obviously ceiling prices and "free" market prices must be reasonably in line if controls are to be lifted without adversely affecting the National Economy.

Accordingly major and persistent increases in costs have been recognised in the ceiling price structure and have been accompanied by gradual elimination of subsidies. The danger that subsidies on a number of items might increase rapidly in the reconversion period as a result of an increased volume of production and imports has hastened the removal process. During 1945 and 1946 many subsidies were removed and the removal of others is in immediate prospect.

Cost of Living

Although the cost of living index continues to rise it is to a considerable extent a controlled rise and illustrates the effectiveness of the Wartime Prices and Trade Board's efforts to stave off, as far as possible, inflationary pressures.

The increases in the first six months of 1946 are largely due to the progressive elimination of price restrictions in accordance with Government policy in removing ceilings and controls on goods and services when the supply situation is such that it may be left to the forces of competition to prevent undue price increases.

Table on previous page illustrates this trend.

EMPLOYMENT AND WAGES

1945 witnessed the continued decline in industrial employment which began in 1944, due chiefly to completion and cancellation of war contracts and slackening of operations after peak wartime production. However, this was confined almost entirely to manufacturing and increased employment occurred in logging, mining, communication, transportation, construction and maintenance, services and trade.

Per capita weekly wage earnings in the eight leading industries during 1945 averaged $32, showing practically no change from 1944. There were 1,769,000 persons employed in these industries as of Jan. 1st, 1946, and of these 967,000 were engaged in manufacturing, 502,000 in non-manufacturing. This division was practically unchanged from the ratio in 1939 of 53 per cent in manufacturing and 47 per cent in non-manufacturing industry.

The areas most seriously affected by reconversion were those in which wartime production needs had brought about large occupational and regional shifts of population. British Columbia, Nova Scotia and Quebec were most seriously involved. Many wartime industries mushroomed in these provinces and with the disappearance of war work there was insufficient diversification of industry to absorb the unemployed labour.

Accordingly there has been a marked shift from manufacturing employment to non-manufacturing employment and the distribution of persons in recorded employment is approximating more closely to pre-war levels than at any time during the war.

Aggregate and average weekly earnings and employment in eight leading industries are shown in the following tables.

Effect of War on Canadian Manufacturing

The effect of the war on Canadian manufacturing was far reaching. The industrial life of the Dominion was revolutionised and Canada is now equipped to produce a wide range of commodities which prior to the war were imported. Apart from it supplying domestic demand to an increased degree, this new manufacturing capacity requires new markets abroad in order to maintain production and employment. This will change to some extent the characteristics of Canada as a market, reducing somewhat, the dependence on imported manufactured goods and increasing requirements of raw materials and semi-manufactured goods. At the same time the higher general level of employment and of the national income represents a marked expansion of the market.

Origin and Distribution of Population

When considering the Canadian market, some knowledge of the geography of the country and the distribution of the population is essential. Politically Canada is divided into nine Provinces and two territories but economically these may be grouped into main market areas: Prince Edward Island, Nova Scotia and New Brunswick comprise the Maritime Provinces on the Atlantic Seaboard; Ontario and Quebec the central portion; Manitoba, Saskatchewan

AVERAGE WEEKLY WAGES OF HOURLY-RATED WAGE-EARNERS REPORTED BY LEADING MANUFACTURING ESTABLISHMENTS, BY PROVINCES

	Canada	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	$	$	$	$	$	$	$	$	$
1947									
January 1 ..	29·07	26·91	28·67	27·33	30·40	29·61	31·18	30·25	31·62
February 1 ..	33·00	32·21	32·59	31·10	33·84	33·00	33·25	32·38	36·54
March 1 ..	33·46	32·60	32·71	31·41	34·30	33·01	34·57	32·76	37·67
April 1 ..	33·52	33·90	33·11	31·52	34·39	33·45	34·06	33·36	37·58
May 1 ..	33·83	33·49	32·84	31·96	34·77	33·27	34·19	33·53	37·21
June 1 ..	34·28	32·23	33·59	32·52	35·07	33·58	34·07	34·22	37·92
July 1 ..	33·94	34·08	33·74	31·26	35·15	34·16	34·13	34·12	37·92
August 1 ..	34·55	33·88	32·99	32·35	35·62	33·40	35·18	32·91	38·34
September 1	34·77	33·90	34·46	33·03	35·73	34·09	34·48	33·73	37·49
October 1 ..	35·96	33·36	34·11	34·11	37·06	34·07	35·83	34·15	39·32
November 1	36·34	34·65	34·96	34·43	37·51	34·69	36·80	34·90	39·41
December 1	37·24	34·54	34·60	35·20	38·61	35·77	37·41	35·87	39·67
1948									
January 1 ..	33·17	31·36	31·72	30·97	34·12	33·30	34·68	34·24	36·78
February 1 ..	37·06	35·53	35·80	34·95	38·14	36·25	38·01	37·02	40·56
March 1 ..	38·02	35·10	35·85	35·82	39·45	35·95	38·36	37·02	41·09
April 1 ..	36·98	35·42	35·36	34·45	38·43	36·13	38·80	37·22	39·83

EMPLOYMENT IN LEADING INDUSTRIES, AS OF APRIL 1, 1948

	Total	Men	Women	Men	Women
	No.	No.	No.	Per cent	Per cent
Manufacturing	1,057,623	822,463	235,160	77·8	22·2
Durable Goods	498,448	445,525	52,923	89·4	10·6
Non-Durable Goods	531,172	352,349	178,823	66·3	33·7
Electric Light and Power	28,003	24,589	3,414	87·8	12·2
Logging	83,895	82,225	1,670	98·0	2·0
Mining	79,440	77,824	1,616	98·0	2·0
Communications	46,167	21,817	24,350	47·3	52·7
Transportation	171,355	160,690	10,665	93·8	6·2
Construction and Maintenance	169,757	165,888	3,869	97·7	2·3
Services	64,546	30,959	33,587	48·0	52·0
Trade	257,037	155,289	101,748	60·4	39·6
EIGHT LEADING INDUSTRIES	1,929,820	1,517,155	412,665	78·6	21·4
Finance	83,769	44,233	39,536	52·8	47·2
TOTAL—ALL INDUSTRIES	2,013,589	1,561,388	452,201	77·5	22·5

and Alberta the "Prairie" Provinces; British Columbia on the Pacific Coast; the Yukon Territory and the North West Territory.

The 1941 census placed the population at a total of 11,506,655. It is now assessed at over 11,900,000 and authorities estimate that the population will be over 15,000,000 by 1971. From 1901 to 1941 the urban proportion of the population has steadily increased. In 1941 it was 54·3 per cent, compared to 37·5 per cent in 1901.

The following table gives the rural and urban population by provinces for 1941 including the two territories.

	Rural	Urban
Prince Edward Island	70,707	24,340
Nova Scotia	310,422	267,540
New Brunswick	313,978	143,423
Quebec	1,222,198	2,109,684
Ontario	1,449,022	2,338,633
Manitoba	407,871	321,873
Saskatchewan	600,846	295,146
Alberta	489,583	306,586
British Columbia	374,467	443,394
Yukon Territory	3,117	1,797
Northwest Territory	12,028	Nil

Canada is bilingual, English and French being the official languages and the 1941 census showed that 1,474,009 people spoke both languages, 7,735,486 English only, 2,181,746 French only.

The table below gives a picture of the racial origins and religions of the population according to the 1941 census.

By far the largest percentage of the population is located in an area stretching from coast to coast, about 200 miles wide, along the southern border adjacent to the United States. This relatively narrow band is served effectively by two transcontinental railroads, the Canadian National and the Canadian Pacific, supplemented by thousands of miles of modern highways. The St. Lawrence-Great Lakes waterways, together with a system of canals, permit large ocean freighters to travel as far as Montreal whence smaller lake freighters can navigate to the heart of the continent.

Trans-Canada Air Lines operate a coast to coast and trans-Atlantic service with which are linked up many privately operated feeder routes, particularly in the Northwest. From the Canadian system, connections are easily made with commercial air routes to all parts of the United States.

Main Market Areas

A glance at the map will indicate the great size of the various market areas. These present certain peculiarities owing to the fact that outside the various urban concentrations, the population is very thinly distributed and

EIGHT LEADING ORIGINS IN CANADA, BY PROVINCES, 1941

Province	British Isles Races	French	German	Ukrainian	Scandinavian	Netherlander	Jewish	Polish
Prince Edward I.	78,714	14,799	172	2	152	494	25	1
Nova Scotia	445,178	66,260	15,038	711	2,353	23,834	2,285	2,206
New Brunswick	276,758	163,934	1,394	22	2,929	4,539	1,228	233
Quebec	452,887	2,695,032	8,880	8,006	4,840	2,645	66,277	10,036
Ontario	2,729,830	373,990	167,102	48,158	27,225	73,001	69,875	54,893
Manitoba	360,560	52,996	41,479	89,762	32,620	39,204	18,879	36,550
Saskatchewan	397,905	50,530	130,258	79,777	68,806	38,894	4,149	27,902
Alberta	399,432	42,979	77,721	71,868	63,494	20,429	4,164	26,845
British Columbia	571,336	21,876	22,407	7,563	41,560	12,737	3,350	8,744
Canada	5,715,904	3,483,038	464,682	305,929	244,603	212,863	170,241	167,485

MEMBERSHIP OF THE EIGHT LEADING RELIGIOUS DENOMINATIONS, 1901–41

Religious Denomination	1901	1911	1921	1931	1941
Roman Catholic	2,229,600	2,833,041	3,389,626	4,285,388	4,986,552
United Church of Canada ..	—	—	8,728	2,017,375	2,204,875
Anglican	681,494	1,043,017	1,407,780	1,635,615	1,751,188
Presbyterian	842,531	1,116,071	1,409,406	870,728	829,147
Baptist	318,005	382,720	421,730	443,341	483,592
Lutheran	92,524	229,864	286,458	394,194	401,153
Jewish	16,401	74,564	125,197	155,614	168,367
Greek Orthodox	15,630	88,507	169,832	102,389	139,629

accordingly presents special problems for efficient distribution and representation.

Prince Edward Island, situated in the Gulf of St. Lawrence had a total population of 95,047 in 1941. It is predominantly English speaking, over 80 per cent being of British race and slightly over 15 per cent French. Its principal industries are agriculture, which accounts for 75 per cent of total production value; and fisheries. In 1945 its imports amounted to $1,120,741 and exports $1,284,094.

Nova Scotia, the most easterly province, had a population of 577,962 in 1941. Over 90 per cent are of British origin. The principal industries of Nova Scotia are manufacturing, accounting for 29·9 per cent of value of total production, agriculture accounting for 20 per cent and mining which accounts for 14·3 per cent. Nova Scotia mines produce over 50 per cent of Canadian output of coal and nearly 70 per cent of total gypsum production. Nova Scotia imports for 1945 were $42,453,645 and exports amounted to $416,179,242.

New Brunswick, situated to the west of Nova Scotia had a total population of 457,401 in 1941 and of this population 276,758 were of British origin, 163,934 of French origin. English is spoken by all but 1 per cent of the population. Agriculture and manufacturing (pulp and paper and sawmills) are the two main industries employing over 30 per cent and 10 per cent respectively of the total of gainfully employed and accounting for 28·7 per cent and 34·1 per cent respectively of total production value. Its imports in 1945 were $64,552,379 and her exports $469,207,277.

The Province of Quebec having the United States as its southern boundary, stretches north into the Arctic. Quebec is predominantly French and Roman Catholic. Total population in 1941 was 3,331,882 with 2,894,621 of this total Roman Catholic and 2,695,032 of French origin. The 1941 census estimates that 60·5 per cent of her population cannot speak English. Its manufacturing industry accounts for 53·6 per cent of total production value but employs only 28·4 per cent of the population whereas agriculture totals 14 per cent of production value and employs 21 per cent of the population. Mining in Quebec is of great importance and accounts for 20 per cent of Canada's copper and gold output. In addition almost all Canadian asbestos is mined there. Imports for 1945 were $470,362,664 and exports were $1,073,036,228.

Ontario stretches westerly from Quebec to Manitoba and has part of the St. Lawrence River and the Great Lakes as its southern boundary. With a total population of 3,787,655 in 1941 it leads Canada in this regard. The population of Ontario is predominantly of British origin; 2,700,434 British and 373,990 French. There is only 1·7 per cent of her population who cannot speak English. The chief sources of revenue are manufactures which total 59·2 per cent, agriculture 14·3 per cent and mining 10·5 per cent of total production value. The production of automobiles is the leading manufacturing industry. Live stock, dairy products and field crops lead in agriculture. Ontario mines account for almost 50 per cent of total Canadian production of minerals; 60 per cent of Canadian gold, 54 per cent of total copper, all of nickel and palladium and almost all the platinum. Imports in 1945 were $786,915,264 and exports $967,983,436.

Manitoba, the first of the Prairie Provinces, in the west had a total population in 1941 of 729,744. Racial origin again is predominantly British, the 1941 census showing 360,560 British, 52,996 French, 41,479 German, 89,762 Ukranian, etc. There are only 7 per cent who cannot speak English. Principal sources of revenue are agriculture 54 per cent, and manufacturing 30 per cent. Wheat, barley and live stock are the principal farm products, in the order mentioned, while slaughtering and packing are the chief manufacturing industries. Imports for 1945 were $42,666,844 and exports $59,108,551.

Saskatchewan the middle of the Prairie Provinces had a population of 895,992 in 1941. A large percentage of European immigrants settled in the west but the principal racial origin is British totalling 396,905 in 1941 compared to 130,258 German, 79,777 Ukranian, 50,530 French. Less than 7 per cent cannot speak English. The principal industry in Saskatchewan is agriculture, accounting for 85·9 per cent of total production value. The chief products are wheat, oats, barley, flax and live stock. Total imports in 1945 were $30,799,786 and exports $1,198,531.

Alberta, the westerly province of the Prairies, had a population in 1941 of 796,169. Racial origin is predominantly British, 399,432 in 1941 followed by German, Ukranian, Scandinavian and French in the order mentioned. 37,057 speak English and French, 3,322 speak French only, 46,028 cannot speak either English or French. Alberta's principal industry like the other Prairie Provinces is agriculture which accounts for 69 per cent of the total production value. Wheat and live stock are the principal products. The principal manufactures are slaughtering and petroleum. Imports in 1945 were $33,264,081 and exports $1,899,036.

British Columbia, Canada's most westerly province, bordering on the Pacific Ocean, had a population of 817,861 in 1941 of which 571,336 were of British racial origin. Unlike the Prairie Provinces, agriculture is only of minor importance, accounting for 10·5 per cent of total production value in 1941. Manufacturing which was 37 per cent of total production value in that year and mining with 12·9 per cent are the principal industries. Shipbuilding, lumbering, fish curing and packing, pulp and paper, slaughtering and petroleum are the principal manufactures. Practically all of the Canadian lead production comes from

British Columbia, over 70 per cent of zinc and about 66 per cent of the sulphur. Imports in 1945 amounted to $113,396,221 and exports to $277,429,511.

Chief Urban Market Areas

Canada's chief urban market areas act as distribution centres serving the larger Provincial groupings.

The following table gives a comparison by population of twelve of Canada's larger cities according to the 1941 census:

City	*Population*
Montreal	1,139,921
Toronto	900,491
Vancouver	351,491
Winnipeg	290,540
Ottawa	215,022
Quebec	200,814
Hamilton	176,110
Windsor	112,112
Halifax	91,829
London	86,740
Victoria	75,218
St. John	65,784

Montreal

Montreal, occupying an area of 50 square miles is situated in the Province of Quebec at the confluence of the St. Lawrence and Ottawa Rivers 1,000 miles from the Atlantic Ocean. It is a terminus and headquarters of both the Canadian National and Canadian Pacific Railways and is also a seaport at the head of ocean navigation on the St. Lawrence River where Great Lakes shipping meets trans-Atlantic steamers. Its harbour facilities will accommodate well over one hundred ocean-going vessels.

It is the largest city in Canada and the marketing centre of Quebec. It is also an industrial, financial and educational centre and as the head of ocean navigation is the distributing point for the inland waterways during the open season.

20 per cent of its population is of British extraction, 66 per cent French. The principal industries are iron and steel products, textiles, clothing, electrical appliances and supplies, tobacco products, shipbuilding and repairs, brass and copper products, boots, shoes and leather, brewing, hardware, tools, cutlery, chemicals, drugs, bags and rubber.

1941 retail and wholesale trade figures were as follows:

Stores, total number	12,754
Total sales, $000	394,415
Per cent provincial sales	48·18
Per capita sales, $	437
Wholesalers, number	2,966
Sales	$1,438,479,100
Employees, number	24,934
Salaries, wages, etc.	$44,277,900

Toronto

The City of Toronto, the capital of the Province of Ontario, is located on the north shore of Lake Ontario and is served by the main lines of the Canadian Pacific and Canadian National Railways, by several Great Lakes steamship lines and 193 transport companies.

As well as being an industrial, financial, commercial and educational centre, it is the main marketing centre of Ontario and is one of the largest mining distributing centres in the world. It is the leading industrial city of Canada.

Over two million Ontario consumers live within a 100-mile radius. Its principal industries are slaughtering and meat packing, electrical appliances and supplies, miscellaneous iron and steel products, brass and copper products, machinery, biscuits, confectionery, cocoa, etc., men's and women's work clothing, bread and bakery products, sheet metal products, printing, publishing and bookbinding, soap, paint, tyres and rubber products, oil crushing and brewing.

1941 retail and wholesale trade figures were as follows:

Stores, total number	9,396
Total sales, $000	399,906
Per cent provincial sales	28·42
Per capita sales, $	599
Wholesalers, number	2,771
Sales	$1,110,048,900
Employees, number	24,290
Salaries, wages, etc.	$43,509,200

Vancouver

Vancouver, located on Burrard Inlet on the Pacific Coast, is the chief Canadian West Coast port and the western terminus of the Canadian Pacific and Canadian National Railways. Its harbour, 48 square miles in area, possesses first class facilities for deep sea vessels of all kinds, and as Canada's "Pacific Gateway," is the natural distribution centre for British Columbia and a large part of Western Canada. There is a population of approximately 500,000 within a 100-mile radius of the city in Canada and owing to the many attractions of the coast it is an important tourist centre.

The principal industries are shipbuilding and repairs, sawmills, slaughtering and meat packing, machinery, sheet metal products, bread and bakery products, miscellaneous iron and steel products, butter and cheese, miscellaneous food products, boilers, tanks, platework, prepared fruits and vegetables, flour milling, fish curing and packing.

1941 retail and wholesale trade figures were as follows:

Stores, total number	4,351
Total sales, $000	145,205
Per cent provincial sales	46·90
Per capita sales, $	527
Wholesalers, number	1,085
Sales	$301,424,200
Employees, number	8,134
Salaries, wages, etc.	$13,851,900

Winnipeg

Winnipeg, the capital of the Province of Manitoba is located 60 miles north of the United States boundary at the confluence of the Red and Assiniboine Rivers. It is served by the main lines of the Canadian Pacific and Canadian National Railways and is the marketing and manufacturing centre of the mid-west.

Principal industries are slaughtering and meat packing, men's and women's factory clothing and men's furnishings, miscellaneous food products, flour and feed mills, cotton and jute bags, butter and cheese, biscuits, confectionery, cocoa, etc., bread and bakery products, brewing, printing, publishing.

1941 retail and wholesale trade figures were as follows:

Stores, total number	2,467
Total sales, $000	136,615
Per cent provincial sales	64·80
Per capita sales, $	516
Wholesalers, number	917
Sales	$488,093,900
Employees, number	7,964
Salaries, wages, etc.	$12,743,300

Hamilton

Hamilton is located at the western extremity of Lake Ontario 43 miles west of Toronto and is served by the railways, lake shipping and transport companies. In addition to its importance as an industrial centre it is also the centre of a fruit and vegetable district.

The principal industries are primarily iron and steel, electrical appliances and supplies, miscellaneous iron and steel products, slaughtering and meat packing, wire and wire goods, coke production, rubber goods, hosiery and knitted goods, machinery, sheet metal products.

1941 retail and wholesale trade figures were as follows:

Stores, total number	2,060
Total sales, $000	86,947
Per cent provincial sales	6·18
Per capita sales, $	523
Wholesalers, number	275
Sales	$96,165,900
Employees, number	2,068
Salaries, wages, etc.	$3,516,300

Windsor

Windsor is the most southern city in Canada and is located on the Detroit River opposite the city of Detroit, U.S.A. Five railways connect it with all parts of Canada and the United States and it is also served by lake shipping and transport companies. As a result of its location it is the leading port of entry of tourists from the United States as evidenced by the entry of 1,373,429 cars in 1945. It is best known as the automobile manufacturing centre of Canada. Large deposits of salt are nearby and the city is surrounded by a very fertile mixed farming district.

The principal industries are automobiles, and supplies, miscellaneous iron products, salt, soda ash, pharmaceutical preparations, brass and copper products, machinery, metal castings, hardware, tools, cutlery, dairy products, distilling and brewing.

1941 retail and wholesale trade figures were as follows:

Stores, total number	1,326
Total sales, $000	53,688
Per cent provincial sales	3·82
Per capita sales, $	510
Wholesalers, number	165
Sales	$46,828,800
Employees, number	1,134
Salaries, wages, etc.	$1,877,800

Quebec

Quebec is the capital of Quebec Province and is located at the confluence of the St. Lawrence and St. Charles Rivers. It is served by both the Canadian Pacific and Canadian National Railways and can accommodate the largest ocean-going vessels in its harbour. As well as being a year-round tourist centre it is important for its industries whose production amounts to 100 million dollars per year.

The principal industries are shipbuilding and repairs, pulp and paper, boots, shoes, leather, tobacco, cigars, cigarettes, slaughtering, meat packing, men's factory clothing, printing and publishing, corsets, bread, bakery products, leather tanneries, fur goods and aerated waters.

1941 retail and wholesale trade figures were as follows:

Stores, total number	1,984
Total sales, $000	63,202
Per cent provincial sales	7·72
Per capita sales, $	419
Wholesalers, number	385
Sales	$121,723,300
Employees, number	2,833
Salaries, wages, etc.	$4,163,800

Ottawa

Ottawa is the capital of the Dominion of Canada and is located on the Ottawa River 120 miles west of Montreal. The district covers a rich industrial, farming, pulp and lumber area.

The principal industries are butter and cheese, bread, bakery products, printing and publishing, engraving, stereo and electrotype printing and bookbinding, aerated waters, planing mills, brass and copper products, brewing, and fur goods.

1941 retail trade figures were as follows:

Stores, total number	1,559
Total sales, $000	81,501
Per cent provincial sales	5·79
Per capita sales, $	527

Halifax

Halifax, located on the Atlantic Coast in Nova Scotia is important as a year-round sea port, and with St. John, New Brunswick, shares the marketing centre of the Maritime Provinces. It is served by the Canadian National Railways and a number of industries are supported of which shipbuilding and ship repairing are the largest.

1941 retail and wholesale trade figures were as follows:

Stores, total number	915
Total sales, $000	51,152
Per cent provincial sales	31·33
Per capita sales, $	705
Net sales	$100,805,400

London

London is located on the Thames River in Ontario 105 miles west of Toronto and enjoys the facilities of the Canadian Pacific and Canadian National Railways.

The principal industries are hosiery and knitted goods, electrical apparatus and supplies, boxes, bags, paper, sheet metal products, machinery, lithographing, bread, bakery products, printing and publishing, miscellaneous chemical products, planing mills, sash and doors, brewing.

1941 retail and wholesale trade figures were as follows:

Stores, total number	1,092
Total sales, $000	39,990
Per cent provincial sales	2·84
Per capita sales, $	511
Net sales	$38,780,600

Victoria

Victoria, located in the southern tip of Vancouver Island is the capital of British Columbia. It is connected by ferry service to all important mainland ports. This city is the distributing centre for Vancouver Island and is active in the lumber trade. It is a noted tourist centre and is visited by more than 300,000 persons each year.

1941 retail and wholesale trade figures were as follows:

Stores, total number	890
Total sales, $000	36,761
Per cent provincial sales	11·87
Per capita sales, $	834
Net sales	$21,651,100

Trade and Commerce

CANADIAN TAXATION

By J. H. PERRY

Assistant to Director Taxation Division, Dominion Department of Finance

THE modern development of the Canadian tax structure began with the division of taxing powers between the federal government and the provincial governments established in the British North America Act, 1867, the written constitution of the Canadian federation. Under the constitution the federal government was given power to raise money " by any mode or system of taxation," and the provincial governments (now nine in number), were restricted to direct taxation levied within the province for provincial purposes.

Until the first war the financial requirements of the federal government were relatively limited, and revenue from the customs tariff and from excise duties on liquor and tobacco was adequate for normal federal expenditures. During the same period the provinces relied mainly on property taxes and in the later years introduced succession duties and income taxes. The impact of the first war, however, brought federal finances into a predominant position, and when new and increased rates of indirect taxation proved inadequate to meet financial needs the Dominion Government in 1917 introduced a national income tax on both corporate and personal incomes.

The first war left the federal government a heritage of financial burdens, particularly for the servicing of the debt, which necessitated the maintenance of a broad revenue system, and many of the taxes imposed during the war, including the income tax, became a permanent part of the federal tax structure. Indirect taxes, however, continued to provide the larger part of federal revenues in the 1920's and the 1930's principally because of the importance attached to the general sales tax and the excises on liquor and tobacco. During this period the provinces added new sources of revenue in the form of gasoline taxes, motor vehicle registrations, royalties on expanding natural resources and profits from the monopoly sale of liquor through provincial liquor commissions.

The financial stress of the depression years revealed serious weaknesses in the allocation of responsibilities on the one hand and taxing powers on the other between the federal and provincial governments, the general experience being that provincial revenue systems were not adequate or were too unstable to meet the requirements of the welfare functions delegated to them under the constitution. Arising out of this troubled financial picture a Royal Commission on Dominion-Provincial Relations (The Rowell-Sirois Commission) was appointed in 1937 to investigate every aspect of fiscal relations in the Canadian federal system. This Commission spent three years in studying the problems involved, holding public hearings throughout Canada. Its report recommended on the one hand, that income and inheritance taxes be levied only by the Dominion Government and, on the other, that provincial debt and relief obligations be assumed by the Dominion. A Conference between the Dominion and the Provinces in 1941 failed to reach any general agreement on these recommendations, but later in the same year the Dominion Goverment proposed that there be a temporary agreement on the transfer of taxes for the duration of the war in return for compensation. This proposal was accepted by all the Provinces, and their withdrawal from the fields of personal and corporate income taxes facilitated a rapid expansion of Dominion taxes to an unprecedented level and in large measure made possible the successful financing of the Canadian war effort. In addition to exercising exclusive control over income taxes during the war years and greatly expanding the revenue yield of these taxes the Dominion also introduced early in the war a federal Succession Duty Act, and increased and extended the taxes on goods and services on a very broad scale. Every important tax source was utilised, with the result that over half of the Canadian war expenditure was met from taxation revenue.

During the war years provincial tax structures were largely left unchanged, due to the combined effect of the tax agreements and the relatively buoyant revenues from the tax sources not covered by this agreement. It was also generally true that the demands on provincial governments were reduced during the war years and in most provinces surpluses were accumulated as a result.

The wartime agreements on taxation between the Dominion and each of the nine provinces expired in the case of individual provinces between October, 1946, and April, 1947. In anticipation of their expiry, conferences were called by the Dominion to work out new arrangements for the future to continue the re-allocation of tax sources and to bring about Dominion participation in social service measures constitutionally within the jurisdiction of the provinces. Again it was not possible however, to attain general agreement among all the provinces and the Dominion on a broad programme. Lacking agreement on an overall re-arrangement, the Dominion Minister of Finance proposed agreements in his budget speech of June 27th, 1946, solely for the transfer of taxes, which any province could accept or not at its own option.

The main features of this proposal were that the Dominion would make payments to the provinces in a total guaranteed annual minimum amount of $181,400,000 in place of payments totalling $100,600,000 a year paid during the war. This minimum amount would be subject to adjustment for increase in population and gross national product. In return for this compensation each province was asked to enter into an agreement (a) not to levy any personal income tax; (b) to levy a 5 per cent corporation income tax but no more; (c) not to impose any other corporation taxes, except in respect of natural resources companies; and (d) to elect either to give up or retain its succession duties, in the latter case a reduction equivalent to its succession duty revenue being made from the amount of its payment from the Dominion. Certain other features of the Dominion's proposal applied equally to agreeing and non-agreeing provinces, and in the case of provinces not entering into an agreement which re-impose their personal income taxes in 1947 and later years the Dominion proposes to allow a credit up to 5 per cent of its own personal income tax for personal income tax paid to a province.

In the months following the offer in the budget speech negotiations were carried on with the provinces that had signified their intentions of entering into an agreement on the basis of the Dominion's proposals, as a result of which changes were introduced which increased the total guaranteed minimum annual payments from $181,400,000 to over $206,000,000. These payments are similarly subject to adjustment for changes in gross national product and population. The other terms of the proposals as outlined above remained unchanged. During the course of 1947 agreements were entered into with seven of the nine Canadian provinces—Ontario and Quebec abstaining—to implement these proposals for a five year period from 1947 to 1951.

In Ontario and Quebec, the two non-agreeing provinces, substantially the same tax structures as were in effect before the war have been re-introduced, with the exception of the personal income tax, which neither province has as yet imposed.

The general position in Canada at the present moment therefore, is that the Dominion Government alone levies a personal income tax; the Dominion Government levies a 30 per cent corporation income tax, and there are additional taxes on corporate income of 5 per cent in the agreeing provinces and 7 per cent in Ontario and Quebec; the Dominion Government alone levies succession duties in seven of the nine provinces, and a credit is allowed against Dominion duty for duties paid by beneficiaries in Ontario and Quebec; in Ontario and Quebec specific corporation taxes such as capital taxes, place of business taxes, etc., are levied but under the agreements with the Dominion the other seven provinces are restrained from levying these forms of tax; any province is free to impose whatever rentals or royalties it may wish to levy in respect of natural resources, which in Canada are under the control of the provinces; apart from these generalisations the tax structures of the provincial governments are approximately the same as they were before the war.

PERSONAL INCOME TAX, 1948

EXEMPTIONS

$750 ..	for a single person;
$1,500 ..	for a married person;
$100 ..	for each child under 16 years of age in receipt of the family allowance;
$300 ..	for each child over 16 years of age not eligible for family allowances, or for any other dependent.

RATES OF TAX on income in excess of the exemptions:—

on the first	$100 ..	10 per cent
next	$100 ..	12 „ „
„	$100 ..	14 „ „
„	$100 ..	16 „ „
„	$100 ..	18 „ „
„	$1,000 ..	20 „ „
on the next	$1,500 ..	22 per cent
„	$1,500 ..	26 „ „
„	$2,000 ..	30 „ „
„	$3,000 ..	35 „ „
„	$2,500 ..	40 „ „
„	$3,000 ..	45 „ „
„	$8,000 ..	50 „ „
„	$25,000 ..	55 „ „
„	$25,000 ..	60 „ „
„	$25,000 ..	65 „ „
„	$50,000 ..	70 „ „
„	$100,000 ..	75 „ „
on the amount over	$250,000 ..	80 „ „

INVESTMENT INCOME

Income from investments in excess of $1,800 a year bears an additional tax of 4 per cent on such income.

TAX PAYABLE IN 1948 BY A SINGLE PERSON AND A MARRIED PERSON

Income $	*Single Person* $	*Married Person* $
1,000	29	—
1,500	120	—
2,000	220	70
3,000	420	270
5,000	835	670
7,500	1,465	1,260
10,000	2,253	1,990
20,000	6,515	6,140
30,000	11,728	11,313

TAXES ON CORPORATION INCOME—1948

Normal Corporation Income Tax	30 per cent (32 per cent on consolidated returns).
Excess Profits Tax	The last year to which this tax applied was 1947; no Excess Profits Tax is now imposed.

Dominion Succession Duties—1948

Complimentary to the tax-agreement proposals made to the provinces by the Dominion government the Dominion rates of succession duty were doubled and a credit allowed up to one-half the Dominion duty for duty paid to a province which remained in the field. Prior to 1947 Dominion and Provincial duties were both imposed on an estate without any credit being allowed for the other duty. As mentioned above, however, seven of the provinces have now withdrawn from the succession duty field, and the tax credit allowance operates therefore only in the case of Ontario and Quebec.

By a 1948 amendment under the Dominion Act no estate of less than $50,000 is subject to duty (the exemption was $5,000 prior to this change); an exemption of $20,000 is granted a widow and an additional $5,000 for each child under 18 years of age, while bequests to other beneficiaties of less than $1,000 are exempt from duty. The rate of duty is dependent partly on the size of the estate and partly on the amount of the succession, and varies with the relationship of the beneficiary to the deceased.

The following table shows the amount of Dominion duty payable in 1948 on estates of various sizes passing to a widow (subject to a credit for duty paid to a province on the same estate).

Size of Estate	*Duty*
$	$
60,000	4,240
100,000	11,760
500,000	156,960

Indirect Taxes on Goods and Services

Taxes are imposed on a wide variety of commodities and services by the Dominion Government. The principal sources of revenue are the 8 per cent sales tax, levied on most manufactured goods, but not on foods, and the duties on liquor and tobacco. A partial list of the more important indirect taxes, and the rates imposed, is given below:—

Liquor	$11·00 per proof gallon.
Cigarettes	10·00 per thousand.
Tobacco	00·61 per pound.
Transportation tickets	15 per cent if over 75 cents.
Jewellery, clocks and watches, ornaments, etc.	25 per cent on the retail value.
Radios and phonographs	25 per cent on manufacturer's cost.

Other taxes are also imposed on automobiles, matches, playing cards, toilet preparations, trunks, bags and suitcases, long distance calls and cables, sleeping berths and parlour car chairs, fountain pens and pencils, candy and chewing gum, furs, cigarette lighters, etc.

In 1947 and 1948 the Dominion withdrew taxes it had imposed on gasoline, gas and electricity consumed in the home, amusement admissions, pari-mutuel bets, and cabarets and nights clubs; in the case of several of these taxes the provincial governments imposed new taxes or increased existing levies by the amount of the Dominion reduction. On the other hand, as a part of a general programme designed to curtail greatly expanded Canadian capital investment and imports of goods from dollar countries, very heavy excise taxes were imposed in November, 1947, on automobiles, radios, electrical appliances and related products. Most of these taxes were at the rate of 25 per cent, and in the case of automobiles, were higher than that rate.

Customs Tariff

Rates are established under the Canadian Customs Tariff covering four categories of imports; (1) the British Preferential Tariff, (2) the most favoured nation rate, (3) the intermediate tariff, and (4) the general tariff; the rate of duty under these categories range from lowest to highest in the order given. The details of individual tariff items are too numerous to be given here, and may be found in the Canadian Customs Tariff.

Provincial Government Taxes

Provincial government tax systems prior to the wartime tax agreements generally included taxes on personal and corporate income and specific taxes on corporations (based on track mileage of railways, premium income of insurance companies, bank branches, express offices, etc.), either in lieu of or in addition to the corporation income tax. As mentioned above, these fields of taxation were vacated under the wartime tax agreements by all provinces, and following the war under new agreements by seven provinces. The agreeing provinces, however, are permitted to levy a 5 per cent corporation income tax on corporate income earned within its boundaries but no additional taxes on net income of individuals or corporations. An adjustment corresponding to the revenue from this tax is made in the payment to the province under the agreement so that no financial benefit will accrue to the agreeing province from the tax. Its purpose is to maintain as uniform a rate of tax on corporate income as possible throughout Canada. The corresponding tax imposed by Ontario and Quebec is at the rate of 7 per cent.

As mentioned above, Ontario and Quebec continue to levy succession duties, while in the seven agreeing provinces the Dominion alone levies such duties.

The gasoline tax, ranging from 9 cents to 13 cents per gallon, and motor vehicle licenses and operators' permits represent a substantial source of provincial revenue, while royalties and leases in respect of natural resources (minerals, timber limits, oil wells, etc.), are general and also contribute a large share. Other provincial tax sources include capital of companies, amusements, pari-mutuel bets, property, licenses and permits for carrying on business, retail purchases (Quebec, Saskatchewan, and recently British Columbia), meals (Quebec), tobacco (Quebec and New Brunswick). As mentioned previously, the sale of liquor through provincially operated Liquor Commissions also forms a principal source of revenue, supplemented by revenue from licenses to purchase alcoholic beverages or to operate a place in which they are served.

Municipalities throughout Canada derive the bulk of their revenues from real property taxes, supplemented by revenue from fees and licenses and in some cases by income from municipally operated street railway and other services.

THE PRESS IN CANADA

Daily Newspapers

THREE types of daily newspapers are published in Canada, English-language, French-language and foreign-language newspapers. The number of these papers has remained about the same in 1946 as in 1945, but they show an increase in circulation in the later year.

French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the larger of these papers have been established in the Province for over 60 years. Ten of the 11 French-language papers are published in this Province, the other being in the adjoining Province of Ontario. Over 93 per cent of the total circulation of the English and French dailies is in the urban centres of 20,000 population or over.

Weekly Newspapers*

The weekly newspapers have a somewhat wider circulation; only 61 per cent of the stated circulation of weekly English-language newspapers is in cities of 20,000 population or over and about 77 per cent of the French-language weeklies.

Canada is well served by foreign-language weekly newspapers. In 1946, these newspapers had a stated circulation of 190,500 copies among which Ukrainian papers had a circulation of 64,937 copies, German 32,165, Yiddish 28,262 and Polish 15,157 copies.

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* Including a very few semi- and tri-weekly newspapers.

Other Publications and Periodicals

The table gives the number of publications other than newspapers published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation while those dealing with agricultural and rural topics, general magazines, dealing with household, social, fiction, etc., and religious and education papers are the most popular types.

STATUTORY HOLIDAYS

New Year's Day
Good Friday
Easter Monday
Victoria Day (May 24th)
King's Birthday (When Proclaimed)
Dominion Day (July 1st)
Labour Day (Sept. 6th)
Thanksgiving Day (When Proclaimed)
Remembrance Day (Nov. 11)
Christmas Day

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY ENGLISH-LANGUAGE NEWSPAPERS, IN URBAN CENTRES OF 20,000 POPULATION OR OVER, 1946

Statistics based on *Canadian Advertising*

Urban Centre	*Census* 1941		1946			
	Population	*Households*	*Daily*		*Weekly*	
	No.	*No.*	*No.*	*Circulation*	*No.*	*Circulation*
Montreal	903,007	203,685	3	223,277	3	322,105
Toronto	667,457	175,736	3	667,106	3	923,293
Vancouver	275,353	80,826	3	255,156	1	2,550
Winnipeg	221,960	59,607	2	132,721	2	4,109
Hamilton	166,337	43,076	1	71,486	Nil	—
Ottawa	154,951	35,601	2	100,616	„	—
Quebec	150,757	28,170	1	5,206	„	—
Windsor	105,311	26,126	1	61,592	„	—
Edmonton	93,817	24,700	2	63,149	1	2,000
Calgary	88,904	25,387	2	58,743	Nil	—
London	78,264	21,050	1	64,863	„	—
Halifax	70,488	15,089	2	119,293	„	—
Verdun	67,349	16,184	Nil	—	2	27,436
Regina	58,245	15,390	1	38,366	1	1,947
Saint John	51,741	12,241	1	41,762	1	5,100
Victoria	44,068	13,236	2	38,700	1	23,943
Saskatoon	43,027	11,461	1	27,128	Nil	—
Three Rivers	42,007	7,688	Nil	—	1	3,810
Sherbrooke	35,965	7,770	1	9,310	1	1,420
Kitchener	35,657	9,215	1	19,810	Nil	—
Hull	32,947	6,427	Nil	—	„	—
Sudbury	32,203	7,685	1	—	1	1,500
Brantford	31,948	8,543	1	15,295	Nil	—
Fort William	30,585	6,763	1	10,990	„	—
St. Catherines	30,275	8,008	1	16,019	„	—
Kingston	30,126	7,226	1	16,291	„	—
Oshawa	28,813	6,837	Nil	—	1	9,923
Timmins	28,790	6,691	1	9,090	1	2,897
Sydney	28,305	5,703	1	21,558	Nil	—
Sault Ste. Marie	25,794	6,307	1	9,401	„	—
Peterborough	25,350	6,364	1	12,743	1	7,550
Glace Bay	25,147	4,828	1	—	Nil	—
Port Arthur	24,426	5,920	1	9,390	„	—
Guelph	23,273	5,939	1	10,367	„	—
Moncton	22,763	5,121	1	16,304	„	—
New Westminster	21,967	5,806	1	6,429	1	5,259
Moose Jaw	20,753	5,424	1	7,092	Nil	—
Niagara Falls	20,589	5,235	1	9,660	„	—
Shawinigan Falls	20,325	3,820	Nil	—	1	2,450
Lachine	20,051	4,258	„	—	1	6,500

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[1] Not all given.

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY ENGLISH-LANGUAGE NEWSPAPERS, BY PROVINCES, 1945 AND 1946

Statistics based on *Canadian Advertising*

Province	1945				1946			
	Daily		*Weekly*[2]		*Daily*		*Weekly*[2]	
	No.	*Circulation*	*No.*	*Circulation*	*No.*	*Circulation*	*No.*	*Circulation*
Prince Edward Island	2	14,861	2	7,365	2	16,125	2	6,875
Nova Scotia	7	144,499	29	69,093	7	149,158	29	70,171
New Brunswick	3	54,825	23	39,540	3	58,066	23	40,325
Quebec	5	220,103	23	307,416	5	237,793	25	390,890
Ontario	34	1,167,159	245	1,173,750	34	1,224,458	247	1,316,559
Manitoba	4	141,378	64	82,556	4	138,496	63	66,269[3]
Saskatchewan	4	72,520	132	112,525	4	77,360	136	117,464
Alberta	6	125,581	83	82,763	6	135,414	83	83,098
British Columbia	11	289,994	63	129,411	11	313,038	66	139,539
Yukon and N.W.T.	Nil	—	4	2,062	Nil	—	4	2,062
CANADA	76	2,230,920	668	2,006,481	76	2,349,908	678	2,233,252

[1] Not given in all cases. [2] Includes semi- and tri-weekly newspapers. [3] Circulation of one large weekly newspaper omitted.

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY FRENCH-LANGUAGE NEWSPAPERS IN URBAN CENTRES OF 20,000 POPULATION OR OVER, 1946

Statistics based on *Canadian Advertising*

Urban Centre	*Census*, 1941		1946			
	Population	*Households*	*Daily*		*Weekly*	
	No.	*No.*	*No.*	*Circulation*	*No.*	*Circulation*
Montreal	903,007	203,685	5	304,256	7	842,885
Winnipeg	221,960	59,607	Nil	—	1	8,161
Ottawa	154,951	35,601	1	23,432	Nil	—
Quebec	150,757	28,170	2	189,184	1	17,500
Edmonton	93,817	24,700	Nil	—	1	3,760
Three Rivers	42,007	7,688	1	16,839	2	6,068
Sherbrooke	35,965	7,770	1	13,457	1	27,737
Hull	32,947	6,427	Nil	—	2	7,106
Sudbury	32,203	7,685	”	—	1	1,860
Moncton	22,763	5,121	”	—	1	9,717
Shawinigan Falls	20,325	3,820	”	—	5	11,372

[1] Not given in all cases.

NUMBERS AND CIRCULATIONS[1] OF PUBLICATIONS,[2] OTHER THAN NEWSPAPERS, BY FREQUENCY OF ISSUE, 1946

Statistics based on *Canadian Advertising*

1946 *Issue*	*General Magazines*		*Business Papers*		*Farm Papers*		*Miscellaneous*[3]	
	No.	*Circulation*	*No.*	*Circulation*	*No.*	*Circulation*	*No.*	*Circulation*
Annually and semi-annually	3	90,000	31	102,769	Nil	—	Nil	—
Monthly	55	2,147,897	184	612,412	18	585,655	34	565,787
Bi-monthly	12	103,086	16	57,055	3	2,900	Nil	—
Semi-monthly	2	301,703	9	18,307	6	269,758	8	126,812
Weekly	6	348,565	17	61,481	10	826,686	20	397,468
Bi-weekly	2	25,000	5	9,270	1	81,108	Nil	—
All others	8	85,780	42	113,007	5	29,748	13	50,800

[1] Not given in all cases. [2] Includes French-language publications. [3] Includes religious, political, labour, etc.

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY FOREIGN-LANGUAGE NEWSPAPERS, 1946

Statistics based on *Canadian Advertising*

Language	1946			
	Daily		*Weekly*	
	No.	*Circulation*	*No.*	*Circulation*
Bulgarian	Nil	—	1	1,000
Chinese	4	[2]	Nil	—
Finnish	Nil	—	2	7,600
German	”	—	7	32,165
Hungarian	”	—	1	3,450
Icelandic	”	—	3	13,425
Lithuanian	”	—	1	[2]
Norwegian	”	—	1	6,422
Polish	”	—	3	151,57
Slovak	”	—	1	2,500
Swedish	”	—	3	13,099
Ukrainian	”	—	6	64,937
Yiddish	2	[2]	3	28,262
Yugoslav	Nil	—	1	2,500

[1] Not given in all cases. [2] Circulation not available.

NUMBERS AND CIRCULATIONS OF MAGAZINES AND OTHER PUBLICATIONS, BY TYPE, 1946

Statistics based on *Canadian Advertising*

Type	1946	
	No.	*Circulation*
Arts and crafts	5	63,755
Agricultural and rural	41	1,791,434
Household and social	12	1,109,406
Educational	39	699,767
Food and clothing	14	43,224
Trades and industry	174	576,850
Insurance and finance	21	70,302
Medical and dental	26	73,856
Brotherhoods and associations	19	289,367
Sports and entertainment	27	444,488
Religious	41	834,128
Transportation and travel	20	160,059
Miscellaneous[1]	71	856,418
TOTALS	510	7,013,054

[1] Includes political, labour and others.

NUMBERS AND CIRCULATIONS[1] OF DAILY AND WEEKLY FRENCH-LANGUAGE NEWSPAPERS, BY PROVINCES, 1946

Statistics based on *Canadian Advertising*

Province	1946			
	Daily		*Weekly*	
	No.	*Circulation*	*No.*	*Circulation*
Prince Edward Island	Nil	—	Nil	—
Nova Scotia	”	—	1	1,351
New Brunswick	”	—	2	13,147
Quebec	10	529,189	96	1,183,527
Ontario	1	23,432	2	3,760
Manitoba	Nil	—	1	8,161
Saskatchewan	”	—	1	886
Alberta	”	—	1	3,760
British Columbia	”	—	Nil	—
TOTALS	11	552,621	104	1,214,592

[1] Not given in all cases.

INSURANCE IN CANADA

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Life Insurance

IN the decade 1916 to 1925 the net amount of life insurance business effected in Canada by Canadian, British, and foreign life companies registered under Dominion laws, and the net amount of business in force at the end of the period, were each three times the corresponding amounts effected in, and in force at the end of, the preceding decade and the amount paid to policyholders was almost exactly 10 per cent of the amount effected.

In the first half of the decade 1926 to 1935, the amount effected was approximately 90 per cent of the amount effected in the whole preceding decade and the amount in force at the end of 1930 exceeded by over 55 per cent the amount in force at the end of 1925; the amount paid to policyholders was approximately 10·5 per cent of the amount effected.

In the second half of the decade 1926 to 1935, the amount effected was little more than 70 per cent of the amount effected in the first half and the amount in force at the end of the decade was nearly 4 per cent less than at the end of 1930, while the payments to policyholders were over 26 per cent of the amount effected and exceeded the amount paid in the first half of the decade by approximately 67 per cent, the larger proportion of which increase was represented by the increased payment of cash surrender values of the policies.

These figures indicate, first, that the impact of the depression, which commenced in 1929, did not seriously disturb the life insurance field before the end of 1930; secondly, that thereafter the effect of the depression was greater than that produced by any other period of financial panic, war, or pestilence that Canada has experienced; and, thirdly, that the life insurance policies held by a depression-stricken public became in effect savings deposits payable on demand to the extent of the cash values guaranteed by the policies.

The experience of the decade 1926 to 1935 has been divided into the two periods because the first part was mainly a period of apparent prosperity and the latter a period of real depression. The decade that followed may also conveniently be divided into two parts, since the first part included the remaining years of the depression period and the latter part was almost wholly devoted to the prosecution of the War, with its attendant increase in the circulation of money and in the national income. The amount of new business effected in the first part of that decade was approximately 97 per cent of that in the latter part of the preceding decade; the net amount in force at the middle point of the later decade was over 11 per cent in excess of the amount in force at the end of the preceding decade, while the total payments to policyholders were approximately 94 per cent of the amount paid in the preceding five years. A very different trend was experienced in the last half of the decade 1936 to 1945. New business effected exceeded by approximately 39 per cent that effected in the first half. The amount in force at the end of the period exceeded by approximately 40 per cent the amount in force at its middle point and the payments to policyholders, notwithstanding the payment of war claims, fell below the amount paid in the first half by 6 per cent.

The experience of the Second World War duplicates, so far as the business of life insurance is concerned, that of the First World War; the stability of the life insurance institution has been more fully recognised by the public than ever before, and it will be surprising if the post-war

Period	*Companies Registered at End of Period*[1]	*Net New Business Effected*	*Net Amount in Force at End of Period*	*Premiums and Annuity Consideration Received*	*Total Payments to Policyholders*
	No.	$	$	$	$
1875	36 (2)	15,074,258	85,009,264	2,882,387	719,485
1876-1885 ..	40 (13)	174,230,286	149,962,146	32,555,618	16,772,766
1886-1895 ..	39 (12)	416,508,562	319,257,581	81,310,433	44,134,250
1896-1905 ..	52 (12)	723,867,143	630,334,240	154,416,016	85,761,613
1906-1915 ..	58 (13)	1,604,962,050	1,311,616,677	318,655,586	179,028,516
1916-1925 ..	59 (13)	4,853,035,411	4,159,019,848	931,147,194	472,977,040
1926-1930 ..	62 (15)	4,418,048,363	6,492,283,194	965,909,264	507,554,792
1931-1935 ..	62 (19)	3,198,099,186	6,259,158,404	1,083,939,951	850,047,201
1936-1940 ..	59 (18)	3,095,993,738	6,975,322,460	1,059,253,965	796,328,743
1941-1945 ..	57 (11)	4,297,504,526	9,751,040,835	1,251,828,908	748,945,047
TOTALS ..	—	22,797,323,523	—	5,881,899,322	3,702,269,453

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[1] Figures in parentheses indicate the number of companies included in the total which were inactive in the sense that no new business was transacted.

period on which we are entered does not see a further great increase in the insurance protection of the Canadian public similar to that which characterised the period commencing with the year 1919.

The foregoing experience is indicated in tabular form by the figures for all companies, which include as well the experience for the earlier decades commencing with the year 1875.

In the preceding statement the Canadian business of Canadian companies is included, as follows :—

Period	*Companies Registered at End of Period*	*Net New Business Effected*	*Net Amount in Force at End of Period*	*Premiums and Annuity Consideration Received*	*Total Payments to Policyholders*
	No.	$	$	$	$
1875	7	5,077,601	21,957,296	707,256	152,652
1876-1885 ..	10	92,815,053	74,591,139	12,792,386	5,278,156
1886-1895 ..	11	245,869,453	188,326,057	42,034,660	19,940,888
1896-1905 ..	22	430,551,779	397,946,902	92,930,789	43,402,141
1906-1915 ..	26	962,874,189	829,972,809	206,183,496	105,560,227
1916-1925 ..	28	2,999,840,703	2,672,989,676	592,230,921	299,539,492
1926-1930 ..	28	2,906,522,666	4,319,370,209	625,181,068	336,329,564
1931-1935 ..	28	1,976,741,019	4,164,893,298	706,314,305	555,416,582
1936-1940 ..	28	1,997,224,913	4,609,213,977	686,335,884	501,502,145
1941-1945 ..	28	2,865,973,053	6,440,615,383	819,073,885	483,391,125
TOTALS ..	—	14,483,490,429	—	3,783,784,650	2,350,512,972

The growth of the total business of Canadian companies is shown in the following statement :—

Period	*Net New Business Effected*	*Net Amount in Force at End of Period*	*Premiums and Annuity Consideration Received*	*Total Payments to Policyholders*	*Actuarial Reserve at End of Period*	*Total Payments to Policyholders and Increase in Reserve*
	$	$	$	$	$	$
1875	5,077,601	21,957,296	707,261	152,652	2,068,936	—
1876-1885 ..	93,728,125	76,139,068	13,059,872	5,330,487	8,823,115	12,084,666
1886-1895 ..	265,047,009	203,356,228	44,634,320	20,599,111	31,839,771	43,615,767
1896-1905 ..	556,509,715	487,624,079	114,554,920	49,198,941	91,272,164	108,631,334
1906-1915 ..	1,224,168,192	1,044,282,837	294,124,940	139,176,825	227,562,062[1]	275,466,723[1]
1916-1925 ..	4,004,124,315	3,722,569,189	879,449,652	460,984,670	688,566,082[1]	921,988,690[1]
1926-1930 ..	5,382,136,760	7,293,602,783	1,199,277,809	640,011,663	1,259,253,948	1,210,699,529
1931-1935 ..	3,667,972,393	6,991,634,101	1,437,127,114	1,080,324,971	1,588,098,044	1,409,169,067
1936-1940 ..	3,300,412,035	7,836,611,820	1,373,849,739	1,014,471,065	2,045,391,799[1]	1,471,764,820[1]
1941-1945 ..	4,278,921,631	10,286,478,923	1,564,926,451	980,048,377	2,725,376,272[1]	1,660,032,850[1]
TOTALS ..	22,778,097,776	—	6,921,712,078	4,390,298,762	—	—

[1] There are included in these figures reserves approximating $7,500,000 in 1906-15, $80,000,000 in 1916-25, $1,400,000 in 1936-40 and $830,000 in 1941-45 on business taken over by reinsurance for which there is no corresponding addition to premiums received.

Investments

It is now generally conceded that the depression of the 1930's arose from a wave of speculation which swept this continent, if not, indeed, the whole world, under the guise of seizing so-called investment opportunities that presented themselves on the stock exchanges. While the position of Canadian life insurance companies generally was not impaired to the danger point, it appeared desirable to modify the investment powers of the companies by legislation. Up to 1932, the investment powers enjoyed by the companies were subject to restrictions as to the nature and dividend record of corporation stocks that might be acquired, but the amount that might be invested by any company in such stocks coming within the prescribed conditions was unlimited by statute. In 1932, at the request of the companies themselves, the total amount that might be invested by any company in common stocks was limited to 15 per cent of the amount of its ledger assets; companies having theretofore exceeded that percentage were debarred from investing further in such stocks until, by sales, writing down, or increase in ledger assets, the limiting percentage was restored.

Another important change in investment policy induced not by statute but by the judgment of the companies themselves was a decrease in the loans on mortgage and a marked increase in the holdings of government bonds. The latter tendency gradually and steadily increased throughout the fifteen-year period following the onset of the depression until, in the later war years, the full net amount available for new investment by the companies was absorbed in government issues.

The following figures for all Dominion life companies will indicate, as at the end of the years given, the changes due to both of these features of investment policy; the trend of the average rate of interest earned on ledger assets during the said years is also shown.

As at Dec. 31	*Investments Held in*			(4) *Total Ledger Assets*	*Percentages*			*Average Rate of Interest Earned*
	(1) *Common Stocks*	(2) *Federal Government Bonds*	(3) *Mortgage Loans*		(1) *of* (4)	(2) *of* (4)	(3) *of* (4)	
	$'000,000	$'000,000	$'000,000	$'000,000	*per cent*	*per cent*	*per cent*	*per cent*
1930	311	33	338	1,436	22	2	24	6·23
1935	300	177	301	1,808	17	10	17	4·59
1940	260	309	306	2,379	11	13	13	4·24
1945	146	1,142	267	3,367	4	34	8	3·89

War Mortality

At the outbreak of the First World War in 1914 few of the life insurance policies outstanding in Canada contained any restrictions respecting military service and most of the companies whose policies did contain such restrictions voluntarily adopted, at the outbreak of the war, a policy of waiving the same and undertaking to pay the face amount of the policies becoming claims due to war service. For new policies issued after the outbreak of the War, the course adopted by the different companies was far from uniform and was based largely on the degree of optimism or otherwise with which the executives of the companies viewed the course and duration of the War; as a rule the provision made for extra premiums for war service was far from adequate to meet the extra mortality incurred. With the increasing gravity of the war problem, the premiums and restrictions were made more onerous and in some cases among the smaller companies became almost prohibitive.

In 1919, the Department of Insurance attempted to collect the figures for the war claims incurred by all companies under Dominion and Provincial laws. The resulting figures represented the amount of settlements under the said policies and were divided into those relating to policies held by: (a) enlisted men killed in action or dying from wounds; (b) enlisted men dying from other causes; (c) other persons engaged in war service or civilians dying as a result of war operations. The figures were as follows, for the years 1914 to 1918, inclusive:—

Item	*Dominion Licensees*		*Provincial Licensees*
	Canadian Policyholders	*British and Foreign Policyholders of Canadian Companies*	
	$	$	$
(a) ..	15,135,811	1,075,345	1,864,369
(b) ..	1,548,562	126,844	198,213
(c) ..	471,045	54,905	35,710
TOTALS ..	17,155,418	1,257,094	2,098,292

At the commencement of the Second World War in 1939, the companies took advantage of the experience gained twenty-five years earlier and adopted for policies thereafter issued a scale of extra premiums according to branch and geographical location of war service based on whatever data were available as to the relative hazards incurred. While, with the progress of the War, changes in the war clause and scale of premiums became necessary, the following summary indicates fairly well the main provisions of the war clause and the said scale of premiums.

The benefits payable under such policies becoming claims:—

(a) as a result of death occurring directly or indirectly from aviation training or naval or military aviation service; or
(b) as a result of such service outside of Canada and the United States or within six months after the end of such service; or
(c) as a result of travel or residence outside the said limits and death resulting directly or indirectly from the War,

would be limited to a return of the premiums paid accumulated at 3 per cent compound interest, unless extra premiums for war service were paid on the following scale:—

I. Military Service Outside of Canada—	
1. All military service other than aviation services except the Army Medical Corps ..	$90 per $1,000 per annum.
Army Medical Corps except nurses	$40 per $1,000 per annum.
Nurses	$25 per $1,000 per annum.
II. Service Outside of Canada—	
Non-combatant units such as Salvation Army, Y.M.C.A. K. of C., etc.	$40 per $1,000 per annum.

III. Civilian Travel and Residence—	
1. Within the area consisting of the Continents of North and South America, including the West Indies, the Bermudas, and Newfoundland, together with the waters lying between the same	No extra.
2. Travel to or residence in an area outside the area described above	Not less than $10 per $1,000 per annum, depending on the length of travel or residence, number of trips, etc.
IV. Naval Service and Marine Service Outside of Canada—	
1. Naval service, excluding submarine service	Not less than $50 per $1,000 per annum.
2. Mercantile Marine .. The regular War Clause excluding the section relating to travel will be included for these risks.	$25 per $1,000 per annum.
V. Aviation Service in Canada—	
1. Groundsmen such as mechanics, repair men, etc. ..	$10 per $1,000 per annum.
2. Student pilots	$60 per $1,000 per annum on the understanding no refund will be made on departure from Canada within one year.
3. Experienced Pilots, viz., those with 300 or more flying hours—	
(a) Non-commissioned Pilots	$40 per $1,000 per annum.
(b) Pilot Officers	$40 per $1,000 per annum.
(c) Flying Officers	$35 per $1,000 per annum.
(d) Flight Lieutenants ..	$25 per $1,000 per annum.
(e) Squadron Leaders ..	$20 per $1,000 per annum.
(f) Wing Commanders ..	$15 per $1,000 per annum.
4. Crew, observers, or photographers	$35 per $1,000 per annum.

While the record of war mortality experienced by the life insurance companies operating in Canada has not yet been fully compiled, it is probable that the following figures will be found to be fairly reliable; they relate to the war claims incurred on Canadian policies during the period 1939 to 1945, inclusive:—

Year	*Settled by Payment of Full Sum Assured*		*Settled by Payment of Limited Benefit Only*		*Total Claims*	
	Policies No.	*Face Value* $	*Policies* No.	*Face Value* $	*Policies* No.	*Face Value* $
1939	50	100,000	Nil	—	50	100,000
1940	310	600,000	60	100,000	370	700,000
1941	920	1,600,000	200	500,000	1,120	2,100,000
1942	2,630	3,500,000	750	1,700,000	3,380	5,200,000
1943	3,900	4,300,000	1,570	3,100,000	5,470	7,400,000
1944	7,770	7,900,000	4,740	8,200,000	12,510	16,100,000
1945	6,960	7,000,000	4,460	8,200,000	11,420	15,200,000
TOTALS ..	22,540	25,000,000	11,780	21,800,000	34,320	46,800,000
Deduction under limited benefit clause ..	—	—	—	20,300,000	—	20,300,000
GRAND TOTALS ..	—	25,000,000	—	1,500,000	—	26,500,000

The following additional data respecting the two World Wars, derived from sources believed to be accurate, are of interest:—

Item	*First World War*	*Second World War*
Duration	4 years, 3 months	5 years, 11 months
Number of Canadians enlisted	620,000	1,003,000
Number of Canadians sent overseas	418,000	555,000
Financial cost to Canada	$1,700,000,000	$20,256,000,000[1]
Canadian claims paid by insurance companies in Canada	$20,500,000	$26,500,000

[1] Sept. 10, 1939, to Mar. 31, 1947.

Fire Underwriting Experience

The experience of fire insurance has, in the view of the trade, a traditional relation to the activity or otherwise of general business; that view is that a period of depression is a period of high fire loss and vice versa, and there are statistics, as well as other considerations, to support that view. If by moral hazard is meant an inclination to incendiarism, it is obvious that anyone so inclined is more likely to yield in that direction if the business carried on in his insured building is bringing him a loss instead of a normal profit but, even if the term implies no criminal intent

Year	*Fire-Loss Ratio*	*Rate of Fire Underwriting Profit*	*Year*	*Fire-Loss Ratio*	*Rate of Fire Underwriting Profit*
	per cent	*per cent*		*per cent*	*per cent*
1919-28	52·20	4·70	1938 ..	40·91	10·07
1929 ..	53·84	1·96	1929-38	48·42	6·52
1930 ..	57·80	0·85	1939 ..	38·40	12·57
1931 ..	59·47	−2·45	1940 ..	36·84	13·72
1932 ..	64·10	−5·73	1941 ..	36·13	6·30
1933 ..	52·09	5·43	1942 ..	43·07	6·52
1934 ..	40·92	15·41	1943 ..	47·04	5·64
1935	36·25	15·61	1944 ..	52·56	−6·99
1936 ..	34·99	15·84	1945 ..	52·43	−6·13
1937 ..	34·88	14·99			

but merely an involuntary lessening of ordinary caution, a period of inactivity or unprofitable business naturally brings a moral hazard making for high fire loss.

The notable feature of the depression of the 1930's is that it brought an unusually low fire-loss ratio in Canada and a correspondingly high rate of fire under-writing profit. The figures for the two ratios are given on page 374, the former relating losses incurred to premiums written and the latter the fire underwriting profit to premiums written. The statement shows also the experience for the decade 1919-28.

It will be noted that the years that marked the depth of the depression, namely 1934 to 1937, saw also an unusually low loss ratio and high rate of underwriting profit and those features have persisted into the war period until, with the slackening of wartime production in industry, a marked reversal has taken place.

The explanation given by many underwriters of the departure from the expected experience indicated above is that the severity of the depression in its early years had the effect of practically eliminating the equity of owners in their buildings occupied for business purposes, so that there was no profit incentive to arson. On the other hand, fire prevention organisations regard the change as evidence of the effectiveness of their publicity and educational programmes in favour of conservation of property; perhaps a longer period of post-war conditions is necessary to permit a final judgment between these views, but at this writing the prospect for an early reduction of the fire-loss ratio is not bright.

The Rate of Fire Premium.—The large underwriting profits shown in the above statement are not due to any increase in the premium rate. There has been, throughout the fifteeen years and earlier, a gradual decrease in that rate. The aggregate rate for all risks, regardless of the term of the contracts, in 1945 was 72 cents per $100 insured, while in 1929 the corresponding rate was 82 cents, and going back to 1918, $1·06. Such an aggregate rate, however, is affected by the relative proportions of one-year and three-year business written by the companies; an increase in the proportion of three-year business will naturally produce an increased aggregate premium rate. A fairer estimate of the change over any period is obtained by dealing separately with the shorter- and longer-term business. This has been done for the years 1939 to 1945 by dealing separately with the one-year term experience and adjusting the longer-term experience to a one-year basis. The result is a change in the rate of premium for a one-year term per $100 insured from 49 cents in 1939 to 46 cents in 1945 or, going back to 1922, from 92 cents.

The reduction in rate indicated by the foregoing is brought about, not by government regulation of rates, but by a healthy competition among different groups of insurers, although some underwriters viewing the present trend towards higher loss ratios and underwriting losses may question the healthiness of the rivalry which has brought about the lower scale of premiums.

Casualty Insurance

The great majority of fire insurance companies operating under Dominion registration transact one or more classes of insurance other than fire, such as automobile, personal accident and sickness, hail, guarantee, and other classes affecting the person and property. These latter classes, however, have shown a more rapid rate of growth than has the fire insurance business and in 1940, for the first time, the volume of casualty premiums exceeded the fire premiums; this tendency has increased until, in 1945, the casualty premiums amounted to over $69,000,000, while the fire premiums amounted to just over $58,000,000. The casualty classes that, at the present time, show the greatest rate of increase are automobile, personal accident and sickness, and personal property insurance.

Number of Operating Companies

There has been a marked increase in the number of companies operating in the fire and casualty field until at the present time the total number of such companies registered by the Department is 320 as compared with 280 in 1929. While this increase has occurred in companies of all nationalities, Canadian, British, and foreign, the most marked change has been in the latter group and the reason for this is probably to be found largely in the restriction of charter powers of companies domiciled in the United States.

Until recently it has been the policy of the States of the United States, by which the great majority of insurance companies in that country are organised, to prohibit a company authorised to transact fire insurance, for instance, from transacting also any class of insurance relating to the person, so that such a company would be prohibited from issuing personal accident and sickness policies or liability policies indemnifying for injury to the person. The result was that while that company might issue an automobile policy covering fire, collision, theft, and property damage, it could not cover the liability feature indemnifying the insured against claims by third parties arising from personal injuries. To overcome this handicap the fire insurance companies were driven either to incorporate or acquire separate casualty companies to transact the casualty classes involving the insurance of the person. The British companies having, as a rule, omnibus powers and the special Acts incorporating Canadian companies providing only the one restriction, namely, that life insurance business if transacted by companies transacting fire or casualty business should have a complete separation of funds, assets, and accounts for the life business, there has been no tendency to multiplication of companies.

It is a matter for gratification that many of the States are at the present time inclined to revise their Acts so as to permit a combination of the principal casualty classes with fire. The State of New York, for instance, at the session of the Legislature in 1946 and 1947 has abandoned the prohibition in respect of automobile insurance referred to above.

General

Taxation.—The life insurance business in Canada is largely exempt from taxation in Canada except to the extent that the premium income thereof is subject to a specific tax which, since the beginning of the War and up to date, has been levied solely by the Federal Government; the rate of that tax is 2 per cent on the net premiums less dividends to policyholders and excluding the consideration for annuities. The only other tax is the tax on profits accruing to the shareholders of Canadian companies through their shareholders' accounts under the Income War Tax Act; the amount of that tax in 1945 represented approximately 0·3 per cent of the Canadian premium income and 0·2 per cent of the total premium income of those companies.

The tax on fire and casualty companies' profits has enjoyed no similar exemption; the profits of those companies have been subject to income and excess profits taxes in much the same way as the profits of other industries.

The only exception to this is that heretofore purely mutual companies have been entirely exempt and with the growth of that group of companies the burden of taxation on joint stock companies has been a form of discrimination of which the latter group has complained.

The Royal Commission on Co-operatives, which conducted its investigation into the question of taxation of co-operatives generally, received representations on the insurance aspect of the question and in their Report of Sept. 25, 1945, they recommended:—

> " 1. That the Income War Tax and The Excess Profits Tax Act (1940) be amended to provide for the taxation of mutual organisations carrying on the business in Canada, of fire, casualty and automobile insurance, in accordance with the recommendations which follow.
>
> 2. That dividends on, or refunds of premiums to policyholders, whether paid in cash or applied against renewal premiums, together with any unabsorbed premiums or premium deposits returned to or payable to policyholders, and any other amount credited to a policyholder or subscriber in such a way that it is eligible by him on giving such notice as may be deemed reasonable, be allowed as a deduction in computing taxable income.
>
> 3. That joint stock companies and other insurers writing fire, automobile and casualty insurance, which pay dividends or make refunds of premiums to policyholders be allowed to deduct such dividends or refunds in computing taxable income."

Following that recommendation, the Income War Tax Act was amended to remove the purely mutual fire and casualty companies from the exemption (1946) c. 55, s. 3, amending s. 4(g) and to permit the deduction from taxable income by any such company, stock or mutual, of dividends to policyholders which during the taxation year were:—

> " (a) paid to the policyholder;
>
> (b) applied in discharge, in whole or in part, of any liability of the policyholder to pay premiums to the insurance company; or
>
> (c) credited to the account of the policyholder on terms that he is entitled to or may obtain payment thereof within a period not exceeding thirty days after demand for payment by him, if notice of crediting upon such terms has been given to the policyholder by the insurance company."

[*ibidem*, s. 4(12), enacting s. 5, ss. (7).]

An exception to the foregoing is that of the company that derives from the insurance of farm property not less that 50 per cent of its net premium income; such a company is exempt from income tax.

The proportions in which the Canadian premiums of fire and casualty companies were distributed in 1945 between the various groups classified as to corporate structure, together with the underwriting profits and income and excess profits taxes incurred, are given in the following statement:—

Company	(1) *Premiums*	(2) *Underwriting*	(3) *Income and Excess Profits Taxes*	*Percentages*	
				(3) *of* (1)	(3) *of* (2)
	$	$	$	*per cent*	*per cent*
CANADIAN—					
Mutual	5,663,124	346,940	Nil	—	—
Stock mutual	2,875,702	96,056	24,100	0·8	25·1
Joint stock	27,726,521	808,856	812,580	2·9	100·5
TOTALS, CANADIAN ..	36,265,347	1,251,852	836,680	2·3	66·8
BRITISH—					
Joint stock	36,194,361	−1,542,206	41,709	0·1	—
FOREIGN—					
Reciprocal	587,412	80,686	Nil	—	—
Deposit-premium mutual	1,163,951	123,632	„	—	—
Other mutual	9,764,964	1,171,397	22	[1]	[1]
Joint stock	43,973,812	−71,720	697,621	1·6	—
TOTALS, FOREIGN ..	55,490,139	1,303,995	697,643	1·3	53·5
ALL COMPANIES—					
Reciprocal	587,412	80,686	Nil	—	—
Deposit-premium mutual	1,163,951	123,632	„	—	—
Other mutual	15,428,088	1,518,337	22	[1]	[1]
Stock mutual	2,875,702	96,056	24,100	0·8	25·1
Joint stock	107,894,694	−805,070	1,551,910	1·4	—
GRAND TOTALS, 1945 ..	127,949,847	1,013,641	1,576,032	1·2	155·5
GRAND TOTALS, 1944 ..	117,154,375	906,838	2,651,115	2·3	292·3

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[1] Too small to be expressed.

Provincial Companies

The foregoing figures relate in the main to the business of Dominion companies and British and foreign companies registered under the Acts of the Dominion. There is, in addition, a limited volume of business transacted by companies incorporated by the provinces of Canada which have not obtained Dominion registration.

CO-OPERATION IN CANADA

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TRENDS IN THE FIELD OF CO-OPERATION IN 1945

FOR the year ended July 31, 1945, reports were received from 1,824 active co-operative business organisations engaged in marketing produce or buying supplies for their members, not including fishermen's associations or service co-operatives. Of these associations, 965 marketed farm products and 1,383 purchased supplies for their members or operated co-operative stores. The larger number of associations purchasing supplies is explained by the fact that associations organised primarily to market produce may purchase supplies as well, and also by the fact that an association may buy several of the types of merchandise used in this analysis. Duplication because of these factors amounts to 524.

Shareholders and members numbered 729,804 and the total number of patrons including members and non-members was estimated to be 738,345. The consolidated balance sheet shows that total assets after provision for depreciation and bad debts amounted to $171,128,184. This is a decrease of $30,000,000 in value of assets from the previous year and is largely accounted for by a reduction in stocks of grain. Bank borrowings which covered these inventories were reduced correspondingly with a total decrease in general liabilities of $43,200,000. The members' equity amounted to $83,774,151 consisting of paid-up share capital of $15,789,047 and reserves and surplus of $67,985,104. This was an increase in members' equity of $11,282,613 over 1944. From 1944 to 1945 total working capital increased from $31,826,711 to $40,163,231. The relation of net worth to total assets increased from 35·7 per cent in 1944 to 48·2 per cent in 1945 indicating a strengthening of the co-operative financial structure.

Sales of farm products amounted to $500,481,627, sales of supplies and merchandise $81,360,855 and other revenue $3,807,585, a total business of $585,650,067. The increase reported in total business over the previous year amounted to $57,794,526.

Marketing

The value of farm products marketed increased from 1944 to 1945 by $41,000,000. The sales value of fruits and vegetables increased by $11,000,000, tobacco $9,000,000, dairy products $8,000,000, live stock $6,000,000, and grain and seed $5,000,000.

A useful measure of co-operative activity on a regional basis is obtained by dividing the total value of products marketed co-operatively for an area by the number of farms which it contains (as reported in the Census of 1941). Saskatchewan led all provinces with average marketings of $1,257 per farm, British Columbia was in second place with $1,083 per farm, Alberta $913, Manitoba $727, Ontario $364, Prince Edward Island $281, Quebec $272, Nova Scotia $154 and New Brunswick $112. The average for Canada as a whole was $683 per farm.

The marketing of grain continued at a high level throughout the crop year 1944-45. It is estimated that during the year ended July 31, 1945, deliveries of grain to the four large co-operatives in the Prairie Provinces whose business is included in this report were 46 per cent of total deliveries in these provinces. This is the same proportion that was estimated to have been marketed co-operatively in 1943-44. Sales value of grain and seed by co-operatives which amounted to $269,000,000 was approximately one-half of the total co-operative business in Canada during the year 1944-45.

It is estimated that marketing co-operatives handled approximately 28 per cent of the main farm products entering commercial channels of trade in 1944-45. Of the total dairy products marketed, co-operatives handled approximately 17 per cent, live stock 17 per cent, eggs and poultry 12 per cent, wool 47 per cent, fruits and vegetables 27 per cent, honey 21 per cent, maple products 36 per cent, tobacco 89 per cent and grains and seeds 46 per cent.

In order to determine the status of co-operatives in relation to non-co-operative methods of moving farm products into commercial trading channels, a comparison was made between the changes in co-operative marketings and total cash income from one year to the next. In 1944-45, co-operative marketings of farm commodities increased 9 per cent over 1943-44 while total farm cash income from the same products increased 15 per cent. This indicates a reduced proportion of the total marketed through co-operative organisations. In the live-stock products group co-operative marketings increased 7 per cent while total cash income increased 15 per cent. Co-operatives in this group apparently did not keep pace with the general increase. On the other hand, fruit and vegetable co-operatives showed an increase in business of 52 per cent in 1944-45 over the previous year while total farm cash income from these products increased 20 per cent. Co-operatives apparently increased their proportion of business in this field during the crop year 1944-45.

Merchandising

The reported sales value of supplies and merchandise purchased by co-operatives for members and patrons amounted to $81,360,855 in 1944-45. This was an increase of $15,900,000 over the previous year. Largest increases occurred in the food-product group and in sales of feed, fertiliser and spray material. In large measure these increases were attributable to the increased use of feeds, fertiliser and petroleum fuel by farmers in attaining the production objectives set for Canadian agriculture.

Fishermen's Co-operatives

In addition to the co-operative business summarised elsewhere, there were 65 fishermen's co-operatives operating in 1944-45 with an estimated membership of 7,633. The total volume of business reported amounted to $5,239,934 which is a substantial increase over that reported for the previous year.

Insurance

Mutual fire insurance is one of the oldest forms of co-operation in Canada. For the year ended Dec. 31, 1944, 409 farmers' mutual fire insurance companies carried insurance risks amounting to more than $1,436,293,000 by farmer members for mutual benefit. Net admitted assets were $15,973,000 and net losses paid in 1944 amounted to $3,014,000.

Co-operative Stores

In 1945 there were 917 co-operative stores in Canada with a membership of over 165,000. Total value of the retail sales made by these stores exceeded $55,000,000. Of the estimated total of retail trade in Canada, co-operatives accounted for 0·8 per cent. This was an increase of 0·2 per cent over the figures reported by the 1941 Census, but it is likely that this increase was the result of more accurate and complete coverage rather than from an increase in co-operative retail trading.

Miscellaneous and Service-Type Co-operatives

At the end of 1944 there were 2,375 co-operative telephone systems in operation across Canada with an investment in excess of $22,000,000 and 110,388 connected telephones. In addition to the co-operative business already mentioned. other co-operative services are provided including housing, lodging and boarding facilities, transportation, medical and hospital care and funeral services.

Perhaps two of the most important recent developments under this heading are the co-operative farms in Saskatchewan and co-operatives for the provision of rural electrification in Quebec. The co-operative farms in Saskatchewan are as yet in the development stage and it is interesting to note that many of the co-operators are young veterans of the War of 1939-45.

The Rural Electrification Board of Quebec assists rural groups to organise co-operatively to provide electricity to the farmstead. For this purpose the Board has been allotted a fund of $12,000,000 by the Quebec Provincial Legislature.

Recent Developments

The Canadian co-operative movement has in recent years expanded and strengthened itself by means of federations and international affiliations. One of these was the organisation of Canadian Co-operative Implements Limited which was designed to manufacture and distribute farm machinery in the three Prairie Provinces. A small factory was acquired at Winnipeg where small implements are now being manufactured. The Company has also concluded a contract with a large Eastern machinery firm to supply them with tractors and heavier farm equipment.

The various co-operative wholesales in Canada have joined into Interprovincial Co-operatives Limited to facilitate interprovincial co-operative trading in the products of the various provinces. Some of these co-operative wholesales are also members of National Co-operatives Incorporated of the United States. This is regarded as one of the first moves towards increasing international co-operative trading.

Taxation Amendments

Amendments to the Income War Tax Act relative to co-operatives were initiated and passed by the Dominion Parliament in August, 1946. For the most part these amendments were based on the report of the Royal Commission on Co-operatives which was tabled in the House of Commons in December, 1945.

The former exemption clause 4(p) was repealed as at the end of the 1946 crop or financial year and full exemption is granted for three years only, to co-operatives commencing business after Jan. 1, 1947. Patronage dividends are deductible by co-operatives as an expense before calculation of taxable income. The latter is made up of: (1) Any surplus arising from member and non-member business that is not paid out; (2) Surplus from non-member business that is paid out to members; (3) Dividends or interest paid on capital stock; or (4) An amount equal to 3 per cent of the capital employed, if actually earned, which may be reduced by payment of interest on enforceable obligations. The tax will be paid on the total of (1), (2) and (3) above, or the total of (4), whichever is the greater.

STATISTICS OF CO-OPERATION

The tables below include statistics of active co-operative business organisations engaged in marketing produce or buying supplies for their members, but do not include statistics of fishermen's co-operatives or service co-operatives.

SUMMARY STATISTICS OF CO-OPERATIVE BUSINESS ORGANISATIONS, YEARS ENDED JULY 31, 1941-45

Year	*Associations*	*Places of Business*	*Shareholders or Members*	*Patrons*	*Sales of Farm Products*	*Sales of Supplies*	*Total Business*[1]
	No.	*No.*	*No.*	*No.*	$	$	$
1941	1,395	4,005	451,685	507,223	215,030,410	25,895,374	242,158,305
1942	1,722	4,291	561,314	620,034	214,762,980	42,327,447	257,090,427
1943	1,650	4,406	585,826	608,680	295,499,274	55,689,141	352,785,598
1944	1,792	4,534	690,967	719,080	459,798,798	65,508,771	527,855,540
1945	1,824	5,341	739,804	738,345	500,481,627	81,360,855	585,650,067

[1] Includes other revenue.

SUMMARY STATISTICS OF CO-OPERATIVE BUSINESS ORGANISATIONS, YEARS ENDED JULY 31, 1941-45—*concluded*

Year	*Total Assets*	*Value of Plant*	*General Liabilities*	*Paid-up Share Capital*	*Reserves and Surplus*	*Working Capital*[1]	*Net Worth as a Percentage of Total Assets*
	$	$	$	$	$	$	*per cent*
1941 ..	145,658,904	38,567,084	92,222,947	10,503,077	42,932,880	14,868,873	36·7
1942 ..	128,004,893	37,597,916	69,964,822	12,220,249	45,819,822	20,442,155	45·3
1943 ..	186,634,839	36,866,861	124,264,085	13,091,948	49,278,806	25,503,893	33·4
1944 ..	203,047,911	40,664,827	130,556,373	15,608,150	56,883,388	31,826,711	35·7
1945 ..	171,128,184	43,048,326	87,354,033	15,789,047	67,985,104	40,725,825	48·2

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[1] Working capital, as used in this table, is the excess of assets less value of plant over general liabilities.

PRODUCTS MARKETED, MERCHANDISE AND SUPPLIES HANDLED BY CO-OPERATIVE BUSINESS ORGANISATIONS, CROP YEAR ENDED JULY 31, 1945

Item	*Associations*[1]	*Value of Sales*
	No.	$
MARKETING—		
Dairy products	552	60,911,834
Fruits and vegetables ..	173	32,133,239
Grain and seed	90	268,922,757
Live stock	264	88,091,373
Eggs and poultry	234	17,788,944
Honey	4	1,106,278
Maple products	3	1,037,295
Tobacco	6	27,522,489
Wool	10	1,723,000
Fur	2	636,769
Lumber and wood	5	174,194
Miscellaneous	30	433,455
TOTALS, MARKETING ..	965	500,481,627

Item	*Associations*	*Value of Sales*
	No.	$
MERCHANDISING—		
Food products	387	19,129,952
Clothing and home furnishings	257	2,910,378
Petroleum products and auto accessories	542	12,248,368
Feed, fertiliser or spray material	859	32,104,073
Machinery and equipment ..	271	921,725
Coal, wood and building material	425	4,674,480
Miscellaneous	692	9,371,879
TOTALS, MERCHANDISING ..	1,383	81,360,855
GRAND TOTALS ..	1,824	581,842,482

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[1] Duplication exists in this column since some associations market produce as well as handle supplies. Some market more than one product and some handle many of the supplies listed.

CO-OPERATIVE BUSINESS ORGANISATIONS, BY PROVINCES, CROP YEAR ENDED JULY 31, 1945

Province	*Associations*	*Shareholders or Members*	*Sales of Products*	*Sales of Merchandise*	*Total Business*[1]
	No.	No.	$	$	$
Prince Edward Island	25	12,327	3,437,530	725,443	4,221,860
Nova Scotia	83	16,242	5,094,063	6,407,610	11,577,710
New Brunswick	41	8,043	3,565,474	2,780,242	6,507,790
Quebec	589	61,713	42,034,827	20,237,714	62,275,269
Ontario	256	57,715	64,929,622	13,464,131	79,841,827
Manitoba	95	116,043	42,180,099	5,586,186	47,927,942
Saskatchewan	496	237,842	174,346,888	16,449,785	191,164,395
Alberta	146	149,196	91,067,024	7,764,575	99,080,370
British Columbia	87	28,675	28,573,519	5,788,269	35,626,053
Interprovincial	6	52,008	45,252,581	2,156,900	47,426,851
TOTALS ..	1,824	739,804	500,481,627	81,360,855	585,650,067

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[1] Includes other revenue.

FINANCIAL STRUCTURE OF CO-OPERATIVE BUSINESS ORGANISATIONS, BY PROVINCES, CROP YEAR ENDED JULY 31, 1945

Province	*Total Assets*	*Value of Plant*	*General Liabilities*	*Paid-up Share Capital*	*Reserves and Surplus*
	$	$	$	$	$
Prince Edward Island	379,550	93,843	121,286	79,798	178,466
Nova Scotia	2,786,634	1,068,798	1,006,544	1,076,516	703,574
New Brunswick	968,745	271,666	444,162	254,736	269,847
Quebec	20,722,152	9,698,977	8,765,866	4,130,737	7,825,549
Ontario	8,396,221	3,382,768	3,660,469	1,668,027	3,067,725
Manitoba	13,446,220	2,819,564	8,731,827	723,446	3,990,947
Saskatchewan	64,094,092	11,445,168	26,184,684	1,337,054	36,572,354
Alberta	28,667,816	5,111,927	18,045,676	855,313	9,766,827
British Columbia	12,965,436	3,760,484	8,131,248	2,435,038	2,399,150
Interprovincial	18,701,318	5,395,131	12,262,271	3,228,382	3,210,665
TOTALS	171,128,184	43,048,326	87,354,033	15,789,047	67,985,104

CANADIAN INTERNATIONAL TRADE FAIR

NO more striking evidence of the important position Canada now holds as one of the foremost industrial and trading nations of the world could have been presented than the Canadian International Trade Fair, held in Toronto from May 29 to June 12 inclusive.

Long since had it been realised that imports were as important as exports, and, in furtherance of that policy, the Canadian International Trade Fair was designed not only to serve as a show place for Canadian products, but also to give manufacturers from other countries an opportunity to present their wares both to Canadian and foreign buyers.

By the Spring of 1946 it was felt that a trade fair, truly international in scope was the answer to the problem, and in August of that year an Order in Council was passed by the Government in Ottawa officially authorising the conduct of Canada's first international trade fair " at as early a date as supply conditions would warrant ". It was no easy matter to predict when such conditions would return. It had to be largely guesswork and 1948 was considered to be a good guess.

Invitations to participate were extended to manufacturers and producers in every country with which Canada had trade relations. A list of more than 120,000 buying organisations throughout the world was compiled and to these firms invitations to attend were dispatched in the summer of 1947.

Toronto was chosen as the location of the Canadian International Trade Fair because of the facilities afforded in the shape of permanent buildings on the grounds of the Canadian National Exhibition and because of its accessibility, for travellers or freight, by land, air or water.

The total floor area occupied was over three-quarters of a million square feet. Exhibits were classified into 22 trade groups to permit ease of space allocation and with a view to facilitating buyers' movements. The buildings were laid out into areas which were allocated to the different classification. Thus, for instance, all textile products were located in the same area, foodstuffs had a section to themselves, and machinery occupied a place of its own.

Basically, exhibitors' booths, which were provided by the Trade Fair at a cost included in the rental of the floor space, were of uniform construction and design. In addition to producing a more orderly and business-like atmosphere this policy had in mind the desirability of eliminating too much unfair competition between expensive and ornate displays by exhibitors unrestricted by currency restrictions and foreign firms who had only limited Canadian capital at their disposal. Single booth units were of 10 ft. by 12 ft. dimensions but, within the limits of total space applications, exhibitors were not restricted to only one booth. Several firms occupied space equivalent to 3 or more single booths. Within certain bounds, there was freedom to use whatever method of design suited the display to be made in the uniform booth provided by the Trade Fair. Exhibitors were supplied with a list of reputable display firms qualified to design and set up their exhibits. Two officially appointed customs broker firms had offices in one of the buildings and Customs officers were present to assist foreign firms with the incoming and outgoing release of their goods.

In the Reception Centre visitors were afforded post office, telegraph, telephone, travel information and passport facilities. Interpreters, stenographers and guides were at the service of those who needed their help. Officers of the Import, Export and Industrial Development Divisions of the Canadian Department of Trade and Commerce were on hand to give all possible assistance and advice on trade matters. The following Canadian organisations had their authorised representatives on duty:—The

Canadian Manufacturers' Association, Canadian Exporters' Association, Canadian Importers' and Traders' Association, Canadian Chamber of Commerce, Canadian Forwarders' Association. Press and radio broadcasting services were represented, and a daily newspaper " Canadian International Trade Fair News," kept visitors up-to-date in what was taking place and supplied exhibitors with a list of the names and addresses of each previous day's visiting buyers. Several well-appointed restaurants and club rooms catered to the food and refreshment requirements of exhibitors and visitors. These were under the supervision of the Trade Fair authorities.

A focal point of considerable interest to buyers and general public alike was the daily International Fashion Show staged in the International Clubroom in the Coliseum. Here, in a colourful setting with a background of music, models gave a preview of the newest and smartest in all types of women's wear and accessories.

Opening ceremonies were performed by the Governor-General of Canada, His Excellency Field-Marshal Viscount Alexander of Tunis, K.G., in the presence of Ministers of the Canadian Government, Members of Parliament, Representatives of Foreign Governments, and Missions, Trade Commissioners, Civic officials and members of a number of Trade organisations. The Fair was open daily from 9 a.m. to 6 p.m. from Mondays to Fridays to accredited business persons only. On Saturdays, when the public were admitted, the closing hour was extended to 9 p.m.

Actual results of any trade fair, in terms of volume or monetary value, are difficult to assess. It can, however, be definitely stated that a very large majority of exhibitors at the 1948 Canadian International Trade Fair were completely satisfied with results. This, to a considerable extent, is verified by their applications for space at the 1949 Trade Fair, for which plans are already well advanced.

Visitors to the 1948 Canadian International Trade Fair could not be other than impressed by the atmsophere of solidity, quality and " aliveness " which prevailed.

There were, admittedly, some mistakes and some shortcomings, but these, in the main, were not serious. They will serve as pointers for an even more successful Canadian International Trade Fair in 1949.

INDUSTRIAL SYNTHETIC RUBBER

ON the Canadian border, halfway between Chicago and Toronto, near the heart of North America, stands a $50,000,000 synthetic rubber plant owned by the people of Canada and operated on their behalf.

Built as a war project and now operated as one of Canada's basic peacetime industries, the plant occupies 185 acres of a former Indian reservation, where only a few decades ago the remnants of the Chippewa tribe were living in tepees, drawing treaty allowances from the " Great White King," making baskets, and periodically smoking the pipe of peace.

Known as the Polymer project, the plant, situated one mile south of Sarnia in the Province of Ontario, is a far cry from the sparsely populated wilderness of earlier days. Instead of trees, it boasts enormous towers, unwalled skeleton-like buildings, and large spheres. Instead of creeks, it has mile upon mile of underground piping and overhead steam lines. Instead of trails, it has miles of roadways. And instead of a small population of Indians, it has some 1,800 men and women operating a plant 24 hours a day, seven days a week, turning out about $20,000,000 worth of buna-S (GRS) and butyl each year.

In daytime, its aluminium-painted " factories " are not unlike the mosques and minarets of the East. At night, its myriad of lights, its weird structures, and its ever-burning flare stacks bear some resemblance to a World's Fair.

From petroleum, coal, salt, soap, water, and a variety of chemicals, the 1,800 men and women on the 185-acre property produce upwards of 90,000,000 pounds of buna-S (GRS) and more than 25,000,000 pounds of butyl, or a total exceeding 115,000,000 pounds a year. This is equivalent to the output of nearly 35,000 native workers tapping 20,000,000 natural rubber trees on 155,000 acres in the South Pacific.

No other plant in the world is quite like this plant at Sarnia. It is the only plant turning out not only the two principal kinds of synthetic rubber, but also the principal components: butadiene and styrene for making buna-S (GRS), and isobutylene for making butyl. In short, it is the only plant able to convert petroleum gases into crude synthetic rubber ready for shipment to the tyre factories and other rubber processors throughout the world.

It is unique, too, in its efficiency. With steadily rising output, it has succeeded in reducing its operating costs to a greater degree than any similar plant, and is showing a fair profit. The only such plant north of the United States border, it supplies all Canadian requirements of buna-S (GRS) and butyl, and has made substantial exports to Europe and the two Americas.

Conceived in February 1942, when the United Nations were still reeling from the shock of Pearl Harbour and the quick Japanese conquest of nine-tenths of the rubber sources of the world, the Polymer plant was born on September 29, 1943, when production of buna-S was begun at half capacity.

Few synthetic rubber plants rolled out their first rubber more speedily. In peacetime the Polymer project would have taken three years to build. Under war pressure, its eight acres of permanent buildings, six miles of sewers, five miles of roads, and complicated mosaic of pipes, conduits, spheres, and towers, were completed within a year and eight months after the first sod was turned. In accomplishing this the 5,000 or more construction men and engineers clipped more than three months from the tight deadline set for them in 1942 by anxious Government officials who feared a rubber famine.

The 1,800 persons employed by Polymer comprise about 1,600 men and 200 women. These include operational technicians, executives, maintenance personnel, office and laboratory staffs, librarians, guards, firefighters, nurses, motor vehicle operators and waitresses.

But these 1,800 persons do not begin to represent the total employment the plant provides. To produce its yearly output of 115,000,000 pounds of synthetic rubber, it creates employment in Canada by purchasing 2,500,000 imperial gallons of benzol, 5,000,000 pounds of soap, enough brine to contain 11,000,000 pounds of salt, 800,000 pounds of sulphuric acid, and hundreds of thousands of dollars worth of chemicals. It buys 25,000,000 imperial gallons of light petroleum and 5,000,000,000 cubic feet of petroleum gas, both of which raw materials are obtained from United States crude oil. From the United States, it also buys 300,000 tons of coal and large quantities of modifiers and other chemicals.

Of the buna-S type of synthetic rubber, Polymer is now turning out four solid varieties and three types of latex. From these various types are made tyre casings, automotive and airplane parts, belting, certain types of hose, wire and cable covering, footwear, hard rubber articles and thousands of other items. In quality buna-S compares favourably with rubber and for some purposes is better than the natural product.

Of butyl, the Polymer plant at present is making three types. Its most important use is for inner tubes and other gas and liquid containers. Inner tubes made from butyl do not tear as easily, age better, and hold air more than ten times longer than those made from natural rubber.

With a research laboratory of its own, and with access to the Dominion Government's National Research Council in Ottawa, the laboratories of several Canadian universities, and the research facilities of various industries, the Polymer Corporation is confident that additional commercial varieties of synthetic rubber can be successfully produced at the Sarnia plant, each to be tailor-made to perform a specific task for the manufacturer and each to be uniform in quality.

Financially a successful enterprise standing on its own feet without Government subsidy, the Polymer Corporation is making long-range plans to reduce costs, expand markets and add to its facilities as the occasion arises. Convinced that its products will continue to be in large demand after natural rubber is available in quantity, it is ready and able to increase its usefulness to Canada and to the many friendly nations with which Canada is engaging in two-way trade.

PATENTS, COPYRIGHTS AND TRADE MARKS

Patents

LETTERS patent, which in England have been in the gift of the Crown from the time of the Statute of Monopolies (1624) and earlier, are and always have been a statutory grant in Canada. An Act was passed in Lower Canada in 1824 wherein provision was made for the granting of patent rights to inventors who were British subjects and inhabitants of the Province. Upper Canada passed an Act in 1826, and Nova Scotia and New Brunswick passed Acts at later dates. In 1849, after the Union, a consolidating Act was passed applying to both Upper and Lower Canada, and the B.N.A. Act (1867) assigned the granting of patents exclusively to the Parliament of Canada. The Dominion Patent Act of 1869 repealed the provincial Acts and has formed the basis of all succeeding legislation.

Letters patent are now issued subject to the provisions of c. 150, R.S.C., 1927 as consolidated in c. 32, 1935, and application for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa, Canada.

The Patents, Designs, Copyright and Trade Mark (Emergency) Order, 1939, was passed to deal with conditions arising out of the War of 1939-45. The Order confers on the Commissioner of Patents power to extend the time for doing anything prescribed by the Patent Act, the Design Act and the Copyright Act; to grant licences to manufacture under enemy-owned patents, designs and copyrights; to vary existing agreements; to hold secret or to withhold from publication any disclosure that might be of service to the enemy; and to grant permission to file patent applications abroad. The main object of the licensing provisions under the Order is to permit and encourage the working in Canada of inventions protected by enemy-owned patents, which for that reason could not be utilised during the War.

PATENTS APPLIED FOR, GRANTED, ETC., IN CANADA, YEARS ENDED MAR. 31, 1944-46

Item		1944	1945	1946
Applications for patents ..	No.	11,227	12,672	14,778
Patents granted	„	7,803	7,084	7,412
Granted to Canadians ..	„	480	486	495
Caveats granted	„	223	302	421
Assignments	„	7,857	8,265	8,964
Fees received, net ..	$	366,254	388,593	421,539

The number of Canadian patents granted increased fairly steadily each year from 4,522 at the beginning of the century to a peak of 12,542 in 1923 and has remained between 7,000 and 8,500 for the past ten years. Of the 7,412 patents granted in 1946, 5,845 or 79 per cent were from inventors resident in the United States, 495 from Canadian residents and 734 from residents of the United Kingdom, while residents of Switzerland applied for 94, of Sweden for 55, of Germany for 52, of the Netherlands for 44, of France for 27, and of other countries for 66.

During the past decade, inventions in the chemical arts (chemicals, fuels, oils, plastics, medicines, pulp, metallurgy and electrochemistry) have been the most numerous followed by inventions in the electrical class (generation power, distribution, lighting, heating, intelligence transmission). In 1946 over one-half of the patents applied for fell in these two classes. In chemistry, the trend was pronounced in the development of acrylic and vinyl resins and plastics. Applications *re* synthetic dyes, the preparation, use and regeneration of catalysts, and lubricating compositions were also numerous, and those *re* therapeutic substances, especially sulfa drugs, penicillin and other substances produced from moulds, received much attention.

In the electrical field, inventions *re* rectification systems, circuit breakers, electronic and condenser welding and high-frequency heating were numerous. In radio, the outstanding trend was in the development of electronic devices, radar developments and radio relay transmission systems.

Inventions for warfare, except in aeroplane structure, declined, though variable pitch propellers and hydraulic and electrical controls for aeroplanes have retained the interest of inventors. In gas engines, attention was directed to jet propulsion, superchargers and fuel ignition systems. In farm machinery, development continued in combines and other harvesters. Building construction was very active, especially in structural details for portable and knock-down houses. Increased interest was also shown in metal cans and boxes, shaft packing using natural and synthetic rubber, the lasting of shoes, the use of plywood in boats, photo-sensitive emulsions, toys and games, cigarette lighters, can openers, etc.

Copyrights, Industrial Designs and Timber Marks

Registration of copyright is governed by c. 32, R.S.C., 1927, and applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Copyright Act of 1921 (consolidated in c. 32, R.S.C., 1927) sets out, in Sect. 4, the qualifications for a copyright and, in Sect. 5, its duration: " Copyrights shall subsist in Canada . . . in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject of a foreign country which has adhered to the Berne Convention and the additional Protocol . . . or resident within His Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death."

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection throughout all parts of His Majesty's Dominions, foreign countries of the Copyright Union, and the United States of America, as well as in Canada.

Protection of industrial designs and of timber marks is afforded under the Trade Marks and Design Act (c. 201, R.S.C., 1927) and amendments, and the Timber Marking Act (c. 198, R.S.C., 1927) and amendments. Registers of such designs and marks are kept under the Copyright Branch of the Patent Office, and information regarding them is published in the *Patent Office Record*.

COPYRIGHTS, INDUSTRIAL DESIGNS AND TIMBER MARKS REGISTERED IN CANADA, YEARS ENDED MAR. 31, 1944-46

Item		1944	1945	1946
Copyrights registered ..	No.	2,869	3,374	3,823
Industrial designs registered..	,,	266	326	525
Timber marks registered ..	,,	8	10	5
Assignments registered ..	,,	315	422	374
Fees received, net	$	15,405	16,847	17,818

Trade Marks and Shop Cards

The Trade Marks Office, a Branch of the Department of the Secretary of State, is charged with the administration of the Unfair Competition Act, 1932, which repealed all previous Acts governing trade marks, and also with the Shop Cards Registration Act, which came into force on Sept. 1, 1938. Applications for registration of trade marks and/or shop cards should be addressed to the Registrar, Trade Marks Office, Ottawa, Canada.

A Register of Trade Marks is kept, in which, subject to the provisions of the Act, any person may cause to be recorded any trade mark he has adopted, and notification of any assignments, transmissions, disclaimers and judgments relating, to such trade mark. In order that the public may be kept informed in the matter of trade-mark registration, a list of marks registered appears in the *Patent Office Record* which is issued weekly.

The Shop Cards Registration Act is designed to afford a measure of protection to organisations, such as trade unions, that formerly were able to register their particular designations as Union Labels under the Trade Mark and Design Act. Registrations under the Act may be renewed every 15 years.

TRADE MARKS AND SHOP CARDS REGISTERED IN CANADA, YEARS ENDED MAR. 31, 1944-46

Item		1944	1945	1946
Trade marks registered ..	No.	1,164	1,144	1,952
Trade mark registrations assigned	,,	693	706	971
Trade mark registrations renewed	,,	627	696	898
Certified copies prepared ..	,,	193	317	475
Shop cards registered ..	,,	2	1	1
Fees received, net	$	48,556	76,089	107,448

CONTROL AND SALE OF ALCOHOLIC BEVERAGES*

THE provincial liquor control Acts have been framed to establish provincial monopolies of the retail sale of alcoholic beverages, with the practical elimination of private profit therefrom. Partial exception is made in the retail sale of beer by brewers, or others which certain provinces permit, while reserving regulative rights and taxing such sales heavily. The provincial monopoly extends only to the retail sale and not to the manufacture of alcoholic beverages. The original liquor control Acts have been modified from time to time as deemed advisable.

During the war years, restrictions were placed on the manufacture, advertisement, importation and sale of alcoholic beverages, but by Aug. 30, 1945, most of such measures had been rescinded.

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* Abridged from the report " The Control and Sale of Alcoholic Beverages in Canada," Dominion Bureau of Statistics, Price 50 cents.

The exigencies of war had a profound effect on the operations of this industry. Due to the great demands for industrial alcohol, the production of potable alcohol had to be curtailed, with the result that the quantity of beverage spirits produced during the year and placed in bond for maturing declined from 9,009,874 proof gal. in 1942 to 2,699,050 proof gal. in 1943. On the other hand, the output of unmatured alcohol increased from 9,761,725 proof gal. to 20,325,529 proof gal. In 1944, the production of unmatured alcohol rose to 26,721,560 proof gal., and that of beverage spirits also rose to 8,502,038 proof gal., while in 1945 unmatured alcohol dropped to 19,263,005 proof gal. and beverage spirits rose to 16,708,576 proof gal.

There were also changes in the nature of the materials used for distilling. The use of wheat increased from 319,647,661 lb. in 1943 to 402,535,232 lb. in 1944, but dropped to 360,472,179 lb. in 1945. Wheat flour (alcomeal) increased from 3,855,803 lb. in 1943, to 77,268,410 lb. in 1944, but dropped to 73,443,114 lb. in 1945. The quantity of molasses used, dropped from 93,895,056 lb. in 1942 to 622,951 lb. in 1943 and 4,658 lb. in 1944, but rose to 4,021,965 lb. in 1945. The quantity of corn used was 22,970,249 lb. in 1943, 15,833,741 lb. in 1944 and 45, 191,740 lb. in 1945.

Net Revenue from Liquor Control

In connection with the provincial figures of net revenue shown in the table below, it is essential to note that they include not only the net profits made by Liquor Control Boards or Commissions, but also additional amounts of revenue received for permits, licences, etc., which are often paid direct to Provincial Governments. In addition to these figures, the Federal Government, for the fiscal year ended Mar. 31, 1946, collected in excise duties. customs duties, excise taxes, licence fees, etc., $70,399,161 on spirits; $48,228,671 on malt and malt products and $2,607,232 on wines.[1]

TOTAL NET REVENUE RECEIVED BY THE PROVINCIAL GOVERNMENTS FROM LIQUOR CONTROL, BY PROVINCES, 1944-46

NOTE.—These figures are for provincial fiscal years ended on the following dates: N.S., Nov. 30; N.B., Oct. 31; Que., Apr. 30; Ont., Mar. 31; Man., Apr. 30; Sask., Mar. 31; Alta., Mar. 31; and B.C., Mar. 31.

Year	*Nova Scotia*	*New Brunswick*	*Quebec*	*Ontario*	*Manitoba*	*Saskatchewan*	*Alberta*	*British Columbia*
	$	$	$	$	$	$	$	$
1944 ..	6,738,081	3,497,089	14,034,564	21,024,903	3,831,368	3,661,301	5,356,107	6,946,254
1945 ..	7,428,911	4,247,301	17,120,638	19,181,266	4,379,365	4,162,775	6,026,112	7,881,497
1946 ..	9,020,665	6,890,562	23,095,957	30,373,016	6,101,352	6,605,448	8,248,814	11,194,187

Apparent Consumption of Liquor in Canada

It is not possible to obtain accurate figures on Canadian consumption of liquor. Certain Liquor Boards do not publish figures to show sales on a gallonage basis, and even were such data available for all provinces they would not necessarily represent total consumption. For example, the quantities consumed by tourists reach a considerable amount. Further, there is no definite information regarding the illegal traffic in liquor, though there is reason to believe that such illicit business has, at times, reached fairly large proportions.

Obviously, figures of consumption are subject to error for the reasons mentioned above, and also because no consideration has been given to increases or decreases in the quantities held in stock by the Boards or by licensees.

APPARENT CONSUMPTION OF WINES, YEARS ENDED MAR. 31, 1944-46

Year	NATIVE	IMPORTED			*Apparent Consumption, Native and Imported*
	Apparent Consumption	*Imports*	*Less Re-exports*	*Apparent Consumption*	
	gal.	*gal.*	*gal.*	*gal.*	*gal.*
1944 ..	3,314,260	290,691	11,005	279,686	3,593,946
1945 ..	3,409,303	303,153	Nil	303,153	3,712,456
1946 ..	3,979,857	595,732	12	595,720	4,575,577

APPARENT CONSUMPTION OF BEVERAGE SPIRITS, YEARS ENDED MAR. 31. 1944-46

Year	*Entered for Consumption*	*Add Imports*	*Deduct Re-exports of Imported Spirits*	*Apparent Consumption*
	pf. gal.	*pf. gal.*	*pf. gal.*	*pf. gal.*
1944 ..	2,620,297	823,422	3	3,443,716
1945 ..	2,676,482	1,043,709	273	3,719,918
1946 ..	4,087,690	1,775,935	113	5,863,512

Spirits.—Practically the total production of spirits is placed in bonded warehouses whence it is released for various purposes. The quantities shown as " entered for consumption " are released from warehouses, duty paid, presumably for consumption for beverage purposes in Canada.

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[1] These figures do not include sales tax, details of which are not available for separate commodities.

Malt Liquors.—Only a small part of the output of malt liquors is placed in warehouses. The available supply is, therefore, made up of (1) production; (2) changes in warehouse stock; and (3) imports.

Wines.—The apparent consumption of native wines is obtained by dividing the rates of excise tax into the total tax collections.

APPARENT CONSUMPTION OF BEER, YEARS ENDED MAR. 31, 1944-46

Year	*Production*	*Add Quantities Entered for Consumption from Warehouses*	*Add Imports*	*Deduct Quantities Placed in Warehouses*	*Deduct Domestic Exports*	*Apparent Consumption*
	gal.	*gal.*	*gal.*	*gal.*	*gal.*	*gal.*
1944	104,062,427	726,817	61,634	7,536,054	6,604,977	90,709,847
1945	122,530,269	6,177,745	76,225	12,591,822	5,968,602	110,223,815
1946	138,941,170	2,596,574	26,550	6,910,528	4,567,667	130,086,099

PRODUCTION OF SPIRITS AND BEER IN CANADA, FISCAL YEARS 1913-47

Fiscal Year ended March 31	*Spirits*	*Beer*	*Fiscal Year ended March 31*	*Spirits*	*Beer*
	Pf. Gal.	*Gal.*		*Pf. Gal.*	*Gal.*
1913..	6,458,452	52,314,400	1931	9,286,780	59,073,685
1914..	6,972,583	56,060,846	1932	7,099,637	52,297,431
1915..	6,116,580	48,023,580	1933	4,345,834	40,664,625
1916..	3,450,011	39,603,080	1934	6,411,230	40,920,623
1917..	6,400,119	34,949,683	1935	4,321,457	52,078,590
1918..	3,566,955	28,717,539	1936	6,553,190	57,154,948
1919..	4,187,109	26,247,562	1937	8,723,005	60,308,148
1920..	2,356,329	36,984,278	1938	10,198,330	67,361,250
1921..	4,194,691	36,194,626	1939	9,642,830	63,331,620
1922..	5,050,188	38,541,746	1940	11,821,317	66,496,129
1923..	3,828,879	36,902,066	1941	14,641,842	79,006,028
1924..	4,411,896	44,080,490	1942	17,569,476	101,081,682
1925..	7,287,691	48,389,995	1943	19,657,698	108,980,613
1926..	5,434,329	52,448,853	1944	27,203,337	104,062,427
1927..	9,121,051	51,755,840	1945	35,555,059	122,530,269
1928..	11,596,200	58,397,913	1946	34,625,339	138,941,170
1929..	16,816,312	65,837,410	1947	21,571,074	155,800,830
1930..	16,813,433	63,450,516			

IMPORTS INTO CANADA OF ALCOHOLIC BEVERAGES, FISCAL YEARS, 1921-47

Fiscal Year ended March 31	*Spirits*		*Beer*		*Wines*	
	Pf. Gal.	$	*Gal.*	$	*Gal.*	$
1921	3,510,574	32,089,969	74,105	143,737	714,980	2,412,501
1922	1,348,603	23,164,485	49,160	114,810	384,211	1,244,907
1923	1,193,123	19,704,693	54,241	120,362	359,273	1,110,243
1924	1,261,541	20,137,492	96,647	214,992	598,125	1,133,955
1925	1,161,169	17,763,865	91,928	181,891	706,717	1,177,873
1926	1,410,637	23,481,927	152,255	316,446	736,311	1,455,700
1927	1,587,475	27,277,008	153,105	333,383	845,074	1,701,924
1928	2,374,885	42,033,919	234,701	428,673	1,147,225	3,437,595
1929	2,604,769	44,750,649	242,100	495,531	1,221,406	3,597,931
1930	2,446,800	41,283,758	259,003	541,961	1,290,957	3,200,768
1931	1,990,574	32,662,269	230,995	482,357	1,050,775	2,290,011
1932	1,421,214	23,798,052	195,664	388,319	877,591	1,743,509
1933	732,306	12,226,849	106,587	218,257	669,849	1,188,885
1934	718,016	13,065,871	93,602	194,234	523,866	963,794
1935	713,346	13,058,393	97,572	200,535	542,019	1,091,887
1936	976,563	7,209,119[1]	88,851	175,700	506,707	1,007,548
1937	1,126,440	6,911,081[1]	97,725	173,717	472,887	1,009,666
1938	1,297,925	6,259,438[1]	104,778	154,090	507,669	1,016,100
1939	1,265,909	5,776,438[1]	97,374	130,675	450,953	898,377
1940	1,612,906	5,551,248[1]	92,873	124,756	468,098	835,686
1941	1,479,606	5,487,562[1]	98,403	136,731	502,354	881,054
1942	1,390,192	5,326,270[1]	86,122	115,629	434,888	733,988
1943	1,284,116	5,908,062[1]	85,211	119,536	434,699	729,759
1944	823,422	4,214,462[1]	61,634	94,478	290,691	534,818
1945	1,043,709	5,193,244[1]	76,225	120,565	303,153	649,905
1946	1,775,935	7,925,334[1]	26,550	25,925	595,732	1,647,551
1947	2,097,427	10,085,704[1]	17,015	23,973	928,664	2,661,066

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[1] The excise duty which was included in the value of distilled spirits, chiefly whisky, imported into Canada from countries entitled to the British Preferential Tariff since the fiscal year 1920-21, is excluded as from April 1, 1935. This lowers the import values and renders them not strictly comparable with those of previous years.

CITY AND TOWN GUIDE

Amherst—Nova Scotia Province—Cumberland County District—Population (1941) 8,620—Altitude from sea level to 111 feet in town; county 1,100 feet.

Newspapers: Amherst Daily News and *News Sentinel* (semi-weekly).

Principal Local Industries: Rolling mill, wheel foundry, cast iron foundry and enamelling. Salt, insulating material, caskets, men's clothing, wind-breakers, boots and shoes, Bendix washers, machine shops, structural steel fabrication, cereal mill, trunks and bags, soft drinks, monuments and tombstones.

Local Activities: Board of Trade, Farmers Clubs, Maritime Winter Fair, Maritime Spring Stock Show and Sale, Maritime Air Show, Amherst Kennel Club.

Arnprior—Ontario Province—Ottawa Valley District—Population (1941) 3,895—Altitude 480 feet—Area 750 acres—Assessed Value: $2,200,000, Real Value $9,000,000.

Arnprior is situated forty miles from Ottawa, the capital of Canada. It is served by two railroads, the Canadian Pacific Railway and Canadian National Railway with interswitching facilities, and by Colonial Coach Lines Buses. It has an Airport operated jointly by the R.C.A.F. and National Research Council. There is also an active Chamber of Commerce in the town. The town owns a 200 acre tract of land bordered by a railway and a highway —ideal for industrial sites. The water supply in the town is particularly well adapted to textile mill use.

Newspaper: The Arnprior Chronicle.

Principal Local Industries: Textiles, wool, lumber and builders' millwork, brick and tile, boats, radio and radar equipment, flour and stock feeds, butter and diary products.

Agricultural products: All products of mixed farming—assorted grains, stock feeds, and dairy products.

Enquiries: The Secretary, Arnprior Chamber of Commerce, Arnprior, Ontario, Canada.

Arvida—Quebec Province—Chicoutimi District—Population (1941), 4,581.

Newspaper: L'Industrie (French).

Asbestos—Quebec Province—County of Richmond District—Population (1941) 5,711—Area 1,224 acres—Rateable Value $4,340,415.

Newspaper: L'Asbestos.

Principal Local Industries: Asbestos Products.

Mines: Asbestos.

Agricultural Products: Dairy products.

Enquiries: J. H. L. Olivier, secretary-treasurer, P.O. Box 20, Asbestos, Que., Canada.

Aylmer—Quebec Province—Wright District—Population (1941) 3,115.

Bagotville—Quebec Province—Chicoutimi District—Population (1941) 3,248.

Barrie—Ontario Province—County of Simcoe District (Central Ontario)—Population (1941) 9,725—Altitude 750 feet above sea level—Area about 2,000 acres—Rateable Value $6,386,521.

Barrie is ideally situated on beautiful Lake Simcoe just 56 miles north of Toronto and is connected by two paved highways with a new four-lane highway in course of construction. One-third of Canada's buying power is within a 100 mile radius of Toronto. Barrie is a growing, progressive town with a purely Anglo-Saxon population of 12,000, and business is well balanced between manufacturing and retailing. It is also the county seat for the County of Simcoe and serves as the distribution centre for the large and prosperous farming community that surrounds it. Barrie is on the Canadian National Railways, has a landing field for planes, an active Chamber of Commerce and there are two farmers' co-operatives. Desirable industrial sites at low cost and local labour are available. Ample 60 cycle electric power available at low cost. Both the Town and the Chamber of Commerce give every assistance and co-operation to new industry.

Newspaper: The Barrie Examiner.

Principal Local Industries: Shoe factory, tannery, electrical appliances, sheepskin tannery, meat packing plant, creamery, planing mill, flour mill.

Agricultural products: Dairy products, beef cattle, swine, potatoes, grain, tobacco, vegetables and fruit.

There is a large tourist industry.

Enquiries: The Barrie Chamber of Commerce, Barrie, Ontario.

Bathurst—New Brunswick Province—Gloucester District—Population (1941) 3,554.

Newspaper: Gloucester Northern Light.

Beauharnois—Quebec Province—Beauharnois-Laprairie District—Population (1941) 3,550.

Newspaper: Le Courier.

Beauport—Quebec Province—Quebec-Montmorency District—Population (1941) 3,725.

Belleville—Ontario Province—Hastings County District—Population (1941) 15,710—Altitude 300 feet—Area 1,900 acres—Rateable Value $13,174,000, exempt $2,946,955.

Belleville is geographically situated in the heart of the industrial section of Canada. It is also in the centre of the most densely populated area in Canada. Belleville is easily accessible by land, water and air. When the Great Lakes-St. Lawrence Seaway is completed, ocean shipping will be brought to the centre of the continent. On this great inland sea route, Belleville is strategically situated at the head of the St. Lawrence, as a port and rail centre, served by main-line railways from east, north and west and important highway routes. Existing port facilities handle medium draft vessels operating on the Great Lakes during the navigation season.

Canadian National and Canadian Pacific Railways maintain approximately 40 miles of tracks within the city, including freight siding at various inland and waterfront points. There are bus services in all sections of the city Highway bus routes connect Belleville with outlying points North, South, East and West.

Properties suitable for factories and other industrial operations are available in 20 separate lots within the city, ranging in area from 10,000 square feet to 16 acreas. The Belleville location service will gladly supply detailed information concerning regional and national markets, construction and labour costs and other data pertinent to any particular industry.

Newspaper: The Daily Ontario Intelligence.

Mines or quarries: Talc and fluorspar mines, Portland cement.

Agricultural Products: Dairying, hard cheddar cheese, apples, small fruits, vegetables.

Enquiries: F. E. Burrows, Manager, Chamber of Commerce, City Hall, Belleville, Ont.

Bowmanville—Ontario Province—Durham County District—Population (1941) 4,113—Area 2,688 acres—Rateable Value $2,860,800.

Newspaper: Canadian Statesman.

Principal Local Industries: Rubber, canning, foundry, glove manufacture, cabinets, paper products, greases and polishes.

Agricultural products: Apples, dairy products and grain.

Enquiries: Secretary, Chamber of Commerce, Bowmanville, Ont.

Brampton—Ontario Province—Peel District—Population (1941) 6,020.

Newspapers: Conservator; Peel Gazette.

Brandon—Manitoba Province—South-Western District—Population (1946) 17,147—Altitude 1,120 feet.—Area 9 sections—Rateable Value $10,252,890 (1948).

Brandon, 140 miles from Winnipeg, situated on No. 1 Trans-Canada and on No. 10 running North from U.S., is served by the Canadian National and Canadian Pacific Railways, main and local lines, and bus services. Brandon has unexcelled daily freight and express service on main and branch lines. The Canadian Pacific Railway has express truck service in conjunction with its railway freight.

There are ample supplies of power and water. Brandon has a modern sewage system except for some outlying parts. These are serviced by city wagons disposal.

The primary local crops are wheat, barley, oats and flax. Secondary crops are hay, corn (for silage), and a few potatoes. There is a moderate dairying area with a little mixed farming and a small amount of hog raising. The area is fairly well mechanised which makes small labour force no more than just adequate. Market gardening of Flats is very important locally, surrounding farms of good size with majority at least half section or larger.

The soil is a heavy clay loam in the Assiniboine Valley. Farther back in knolls and hills this becomes a sandy loam. South, North and West there is fair growing soil. East of Brandon the soil is sandy and poor. The area never suffers from drought.

Newspaper: The Sun Publishing Co. (daily).

Principal Local Industries: Woollen mill, oil refinery, and manufacture of tanks.

Agricultural products: 3 creameries.

Enquiries: H. A. McGill, secretary, Brandon Chamber of Commerce, Brandon, Man.

Brantford—Ontario Province—Brant County District—Population (1941) 31,948—Altitude 705 feet—Area 3,292 acres—Rateable Value $37,967,620.

Newspaper: The Brantford Expositor (daily).

Principal Local Industries: Farm implements, textiles, abrasives and adhesives, heavy machinery, paper products, carpets, sporting goods, work clothing, refrigerators, paints, roofing, wax.

Agricultural products: Mixed grains, oats, hay and clover, wheat, dairy products, tobacco, fruit.

Enquiries: Brantford Board of Trade, Hotel Kerby, Brantford, Ontario.

Bridgewater — Nova Scotia Province — Lunenburg County District—Population (1941) 3,445—Altitude, Sea level—Area 3,000 acres—Rateable Value $6,000,000.

Bridgewater, known as the Hub of the South Shore, is the centre of a large successful rural farming and lumbering area. It is a divisional point on the Canadian National Railway. The La Have River divides the town into East and West Side. There are hotels, restaurants, churches of all denominations, three banks, golf links, a tennis club, a raceway, half mile trotting track and exhibition buildings. Bridgewater owns and generates its own hydro-electric power and distributes to urban and rural districts. It has modern water and sewer system, good paved streets and sidewalks.

Newspaper: Bridgewater Bulletin.

Principal Local Industries: Gasoline marine engines, Nu-moa fire preventative, woodworking, logging and lumbering.

Agricultural products: Centre of large rural farming area.

Brockville—Ontario Province—Leeds County District—Population (1941) 11,342—Altitude 282 feet—Area 1,397 acres—Rateable Value $7,584,425.

Brockville is situated on the St. Lawrence River at the beginning of the Thousand Islands. The nearest Canadian town to New York City, which is 362 miles south, it is 125 miles from Montreal and 208 miles from Toronto. There are 10 churches, 5 public and one separate schools, one collegiate and vocational school and one business college. Two medical and surgical and one mental hospitals. Five banks, six hotels and a number of factory sites owned by the corporation. The electricity power rate (service charge) $1.00 per h.p. per month of connected load or demand; (consumption charge) first 50 hours of connected load or demand, 1·3c. per k.WH. Second 50 hours of connected load or demand, 0·8c. per kWH. Remaining consumption, 0·33c. per kWH. Local discount, 25 per cent; prompt pay discount 10 per cent.

For transportation there are the Canadian National Railway, the Canadian Pacific Railway, with port facilities on the St. Lawrence River and wharf accommodation for the largest lake and river vessels. The boats of the Canada Steamship Lines call at Brockville almost daily during navigation season, on their way from Montreal to the Great Lakes and vice versa. Fast ferry service between Brockville and Morristown and New York Central Railways meets all trains. Being on Highway No. 2 all trucking companies operate through the town.

There is a very active Chamber of Commerce with between three and four hundred members who will be glad to co-operate in any way with industries, tourists, or individuals seeking information. The Brockville Co-operative Association is building up a big trade with the farmer and has a real retail department.

Principal Local Industries: Forgings and foundries, hats, electrical works, belting, engines, starch products, grinding wheels, gloves, machinery, lumber and medicines.

Agricultural Products: Dairy and milk products, foodstuffs, feed, greenhouses.

Enquiries: Brockville Chamber of Commerce, F. J. E. Rogers, Secretary. Graeme Gorrie, Chairman of Industrial Committee, Chamber of Commerce, Brockville.

Buckingham—Quebec Province—Hull District—Population (1941) 4,516.

Newspapers: Courrier de Papineau; Post.

Burlington—Ontario Province—County of Halton District—Population (1941) 3,815—Area 637 acres—Rateable Value $3,459,521.

Burlington is on Lake Ontario and is served by the Canadian National Railways. It has two highways, and power, sewer and water facilities. There is a Chamber of Commerce at Burlington.

Newspaper: The Burlington Gazette.

Principal Local Industries: Lumber, sprays, insecticides, chemicals, baskets, canning.

Enquiries: M. M. Bush, Town Clerk.

Calgary—Alberta Province—Calgary District—Population (1946) 98,101—Altitude 3,439 feet—Area 25,368 acres (39·6375 sq. miles)—Rateable Assessment Value 1947—Land, 100 per cent valuation—$24,133,225·00; 1947—Buildings, 50 per cent valuation—$39,196,535·00.

Newspapers: Calgary Herald (daily); *Calgary Albertan* (weekly).

Principal Local Industries: Meat packing, fertiliser, flour milling, petroleum products, railway rolling stock, bakery products, agricultural machinery, boxes (wooden and corrugated paper), breweries, foundering, cement and cement building blocks, tourist industry, oil.

Agricultural Products: Grain, cattle, registered seed.

Enquiries: Calgary Board of Trade, 120, Seventh Avenue West, Calgary, Alberta.

Campbellton—New Brunswick Province—Restigouche-Madawaska District—Population (1941) 6,748.

Newspapers: Graphic; Tribune.

Camrose—Alberta Province—Camrose District—Population (1946) 2,941—Altitude 2,427 feet—Rateable Value $3,854,640.

Newspaper: Camrose Canadian.

Principal Local Industries: Byers flour mills and elevator, flour and other subsidiary products, breakfast cereals, seed cleaning plant (largest in Western Canada), chicken hatchery. Distribution centre.

Mines: Strip coal mine, 4 miles East and 8 miles Northeast; other underground mines in vicinity.

Agricultural Products: Cattle, swine, poultry, all grains.

Enquiries: Wm. E. Gardiner, Secretary-Treasurer, Town of Camrose, *or* Mr. J. E. Stuart, Secretary-Treasurer, Camrose Board of Trade.

Cap de la Madeleine—Quebec Province—Champlain District— Population (1941) 11,961—Altitude 150 feet—Area 4,275 acres—Rateable Value $11,500,000.

Cap de la Madeleine is located on the north shore of the St. Lawrence River at the junction of the St. Maurice River, half way between Quebec and Montreal. It is served by the Canadian Pacific Railway. Cap de la Madeleine in Champlain County adjacent to a deep water quay on the St. Lawrence River, and wharves on the St. Maurice River, with a large air-port and excellent railway services, is an important industrial and agricultural centre. The great water-power developments which have been built in series along the St. Maurice River provide Cap de la Madeleine, situated at the outlet of that river, with immense hydro-electric resources. In this respect, Cap de la Madeleine is in a most favourable position, not only with respect to other centres in Quebec province but also in regard to any other centre in the Dominion. Electric power is plentiful and cheap and attractive industrial land sites are available.

The workpeople of Cap de la Madeleine, with their religious background, are diligent, orderly and inspire confidence. The industrialist who locates here may fully depend upon the diligence and productive value of the local workers. French-Canadian women are especially renowned for their manual dexterity in handicrafts, particularly in light industry. Out of its territory of 4,275 acres, Cap de la Madeleine still has 3,988 acres left for future industrial and residential developments.

In the north-west section there is an exceptionally spacious and compact site comprising 900 acres. The soil is remarkable for its dryness and for its suitability for foundations.

There is ideal hunting and fishing territory in the vicinity of Cap de la Madeleine. During the winter, fishing through the ice for " les petits poissons des chenaux " (tommy-cod) is a sport which has made Cap de la Madeleine famous. River, lakes and streams of the district abound with trout, doré, black bass, pike, etc. Cap de la Madeleine is the gateway to a magnificient hunting country where game of all kinds, from rabbits, hares and partridges up to lordly moose may be bagged.

Newspaper: L'Avenir (weekly).

Principal Local Industries: Paper (newsprint), paper bags, tinfoil paper, silk, garments, lumber, gloves, etc., silk spinning, metal toys, metal utensils etc.

Quarry: Stone quarry within 10 miles.

Agricultural Products: Potatoes, wheat, oat, etc.

Enquiries: J. Edward Biron, City treasurer, B.10. Box 217, Cap de la Madeleine, P.Q.

Carleton Place—Ontario Province—Ottawa Valley District—Population (1941) 4,305—Altitude 450 feet—Area 1,326 acres—Rateable Value $2,008,000.

Newspaper: Carleton Place Canadian.

Principal Local Industries: Stove foundry (stoves, electric and gas ranges, furnaces), 2 woollen mills, lumber and planing mill.

Agricultural Products: Creamery (butter), 2 dairies (milk distribution), honey.

Enquiries: Chairman, Publicity Committee, Town Hall.

Charlottetown—Prince Edward Island Province—Queens County District—Population (1941) 14,821—Altitude 25 feet—Area 2,560 acres—Rateable Value $7,000,000. Tax rate 3¼%.

Newspapers: Charlottetown Guardian ; The Patriot.

Principal Local Industries: Tourist business, fishing and associated smaller industries.

active community organisations including both Service Clubs and Fraternal Organisations.

Newspaper: Dunnville Chronicle (weekly).

Principal Local Industries: Largest Canadian woollen mill, steel mill (wire), 2 cotton mills, fish net, 11 large fisheries, 2 canning factories.

Quarries: Stone.

Agricultural Products: Dairy products.

Enquiries: R. G. Reade, Secretary, Chamber of Commerce, Dunnville, Ontario. Box 210.

East Angus—Quebec Province—St. Francis District—Population (1941) 3,501—Area 2,000 acres in Town (Industrial); 16,000 acres in District (Agricultural)—Rateable Value $2,600,000.

East Angus, on the St. Francis River, on Provincial Route No. 1, is 13 miles East of Sherbrooke and 120 miles South of Quebec City. It is served by the Quebec Central Railway, main road Quebec-Sherbrooke-U.S.A. There are buses, daily, for Sherbrooke with connection for Quebec or Montreal and daily truck line service for Sherbrooke and Montreal. East Angus is in the vicinity of the Air Mail Line, Montreal-Halifax. There is a water and sewer system in all the town.

East Angus has a Board of Trade, and several schools and churches. 20 per cent. of the population speak English only; 30 per cent. only French; 50 per cent. are bilingual.

Principal Local Industries: Wood, pulp and paper, paper bags, (for cement and for stores), kraft and cardboard, brick, tiles and drains, sash and doors, glove factory.

Mine: Copper (closed).

Agricultural Products: Dairy products, cattle, eggs, potatoes, hay.

Eastview—Ontario Province—Ottawa East District—Population (1941) 7,966.

Edmonton—Alberta Province—Edmonton District—Population (1946) 109,997—Altitude 2,185 feet—Area 27,040 land, and 992 acres occupied by the Saskatchewan River.

Edmonton, with a population of 126,609, is situated on the main line of the Canadian National Railway, as well as on a transcontinental line of the Canadian Pacific Railway, and serves the Northwest Territories by lines of the Northern Alberta Railways, operating to Waterways and the Mackenzie River area, and to Hines Creek and Dawson Creek, serving the Hay River and Alaska Highway section of the North. Branch lines of both Canadian National and Canadian Pacific radiate from Edmonton to serve the communities in her trading area.

Edmonton's airport is one of the finest in Canada, and a satellite field of gigantic proportions is located a short distance from the City.

The Edmonton Chamber of Commerce has been in operation since 1889, and now has the largest membership in its history, namely: twelve hundred members, composed of business and professional men, individual citizens and representative agriculturists.

Newspapers: The Edmonton Journal; The Edmonton Bulletin (noon and evening editions daily, excepting Sunday).

Principal Local Industries: Meat packing, butter, cheese, ice cream, flour and cereal mills, sash and door factories, breweries and bottling works, bedding and chesterfields, candy and biscuits, men's and women's wear, smocks and awnings, eggs and poultry, boat building, aeroplane, ski and school bus manufacturing, oil, natural gas, salt, lumbering, bricks.

Mines: Coal.

Agricultural Products: Flour and cereals, meat packing, butter, cheese and ice cream, eggs and poultry, hatcheries. lumbering, fur farm (mink, chinchilla, rabbits, fox).

Enquiries: G. W. Curtis, Industrial Commissioner, City of Edmonton, Civic Block. Don McKay, Edmonton Chamber of Commerce, McLeod Building.

Edmundston—New Brunswick Province—Restigouche-Madawaska District—Population (1941) 7,096—Area one and a half mile square.

Edmundston is in the Shiretown of Madawaska County and is located at the gateway to Maine and the Province of Quebec.

It owns and operates its own Hydro-electric plant, supplemented by an auxilliary diesel installation with a total output of 2,500 h.p.

Its population is 75 per cent. of French origin and 90 per cent. are bilingual.

The Edmundston Chamber of Commerce has 300 members. Is a Divisional Point on the Canadian National Railways, the Northern New Brunswick terminal of the Canadian Pacific Railway and a Divisional Point of The Temiscouata Railway.

Edmundston is connected to the State of Maine by an International Bridge, and twelve miles from the Province of Quebec.

It offers outstanding geographical, and climatic advantages. It is advantageous for industry, having electric power and good locations for suitable sites near any one of its three railroads.

Situated on Trans-Canada Highway No. 2, Edmundston's highways with the United States and with the rest of New Brunswick, Nova Scotia and Prince Edward Island, are open the year round, and have the reputation of being the best in the East.

Newspaper: Le Madawaska.

Principal Local Industries: Pulp, paper, lumber.

Agricultural Products: Mixed farming, potato growing, dairying.

Enquiries: The Secretary, Edmundston Chamber of Commerce, Edmundston, N.B.

Estevan—Saskatchewan Province—Estevan District—Population (1946) 3,084—Altitude 1862 feet—Area 800 acres (approx.).

Newspaper: Estevan Mercury.

Principal Local Industries: Large farming area, coal mining, brick manufacturing, flour mill, nurseries, greenhouses, briquette plant.

Mines: Western Dominion Coal Mines, Ltd., Manitoba and Saskatchewan Coal Co., Ltd., Jenish Bros. Coal Mine and others.

Agricultural Products: Wheat, oats, barley and flax.

Enquiries: D. Bannatyne, Secretary, Board of Trade, and Tourist Information Bureau.

Farnham—Quebec Province—Bedford District—Population (1941) 4,055—Altitude 96 feet—Area 900 acres—Rateable Value $2,771,045.

Flin Flon—Manitoba Province—Flin Flon District—Population (1946) 7,522—Altitude 985 feet—Area 4,050 acres—Rateable Value $3,880,000.

Newspapers: Flin Flon Miner and *Daily Reminder* (both daily).

Mines: Hudson Bay Mining and Smelting Co., Ltd., copper, zinc and gold.

Enquiries: The Secretary-Treasurer, Town of Flin Flon, Manitoba.

Fort Erie—Ontario Province—Welland County District—Population (1941) 6,595—Altitude 573 feet—Area 1,578 acres—Rateable Value $300 an acre and up.

Newspaper: Fort Erie Times-Review.

Principal Local Industries: Customs port, railway centre, immigration (bridge and ferry).

Agricultural Products: Fruits, grains and vegetables.

Fort Francis—Ontario Province—Rainy River District—Population (1941) 5,897—Altitude 1,200 feet above sea level—Rateable Value 45 mills is the assessment value.

Fort Francis is the gateway to the internationally famous and popular Lake of the Woods, Rainy Lake, Manitou, Crow Lake, Sioux Narrows, Eagle Lake, Kenora, Dryden, and Red Lake. The Fort Frances Chamber of Commerce Tourist Bureau and the Province of Ontario Tourist Bureau are located in two blocks east of the Canadian end of the International Bridge.

Conducted tours are arranged to see the paper mill.

There is lakeside accommodation on Rainy Lake, 2 miles from the heart of the business section.

Canadian National Railways, the Duluth Winnipeg and Pacific and the Northern Pacific Railway lines serve Fort Frances (the terminus of the last named is at International Falls). The Greyhound and Northern Transportation Company bus lines in Minnesota and the Northern Transit Company bus lines in Canada converge on Fort Frances. The Northern Transit Company bus lines, from Fort Frances, serve Rainy River, and to the north Kenora and the trans-Canada Highway, including Winnipeg, Dryden, Fort William and Port Arthur as well as serving Red Lake.

There are three airways operating from Fort Frances and an excellent airport operates at International Falls for wheel equipped planes.

Pontoon equipped planes may land safely in Sand Bay east of Fort Frances where servicing facilities are available at the licensed airport.

There is a Chamber of Commerce, and factory sites are available.

Newspaper: Fort Francis Times.

Principal Local Industries: Paper making, lumber products, sawmill.

Mines: Steep Rock Iron Mine.

Enquiries: W. A. Martin, Secretary, Chamber of Commerce, Tourist Bureau, 283, Church Street, Fort Francis, Ontario, *or* Department of Travel and Publicity, Mr. G. Baird, Supervisor, 283, Church Street, Fort Francis, Ontario.

Fort William—Ontario Province—Thunder Bay District—Population (1941) 30,585—Altitude 607 feet—Area 11,961 acres.

Fort William has an aerodrome and Chamber of Commerce, C.P.R. and C.N.R. Railways.

Newspaper: Fort William Daily Times Journal.

Principal Local Industries: Paper making, flour mill, manufacturing of Presto logs, starch, grain.

Mines: Gold mines.

Agricultural Product: Grain.

Fredericton—New Brunswick Province—York-Sunbury District—Population (1941) 10,062.

Newspaper: Gleaner.

Galt—Ontario Province—Waterloo County District—Population (1941) 15,346—Altitude 936 feet—Area 1,988 acres, of which 104 is park area—Rateable Value $12,699,120.

Galt, 60 miles from Toronto and 30 miles from Hamilton, is served by the Canadian Pacific and Canadian National Railways and has electric railway service to surrounding cities.

It is the centre of a rich agricultural district and has public and separate schools, a collegiate institute, 6 banks, a public library, 3 theatres and several churches.

Newspaper: Galt Reporter.

Principal Local Industries: Textiles, boots and shoes, heavy machinery, boilers, machine tools, metal castings, brass goods, plastics and rubber products, nails and tacks.

Enquiries: Secretary, Galt Board of Trade.

Gananoque—Ontario Province—Leeds District—Population (1941) 4,044.

Newspaper: Reporter.

Geraldton—Ontario Province—Thunder Bay District—Population (1941) 2,979—Altitude 1,100 feet—Area 1,014 acres—Rateable Value $1,700,000.

Newspaper: Times-Star.

Principal Local Industries: Gold mining and lumbering (bush cutting).

Mines: Gold mines.

Enquiries: Leonard Dreany, Town Clerk, Geraldton, Ontario.

Glace Bay—Nova Scotia Province—Cape Breton S. District—Population (1941) 25,147.

Newspaper : Gazette.

Goderich—Ontario Province—Huron County District—Population (1941) 4,557—Altitude 700 feet—Area 1,000 acres—Rateable Value $2,700,000.

Goderich is served by Canada's two great railways which terminate here, and ship a large quantity of grain from this port.

Provincial Highway 8 (cement) to Niagara Falls starts here and 21 passes through the town.

There is an airport located within a mile of the centre of the town.

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There is building space available at a nominal figure for bona-fide industries. Some 12 acres right at the harbour.

There are no empty factories. The Trade Board feels that there is excellent opportunity for a light industry.

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Principal Local Industries: Paper making, flour mill, manufacturing of Presto logs, starch, grain.
Mines: Gold mines.
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Principal Local Industries: Gold mining and lumbering (bush cutting).
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Newspaper: Goderich Signal-Star (weekly).
Principal Local Industries: Manufacture of salt, flour, timber, road machinery and hosiery, grain elevators and oil storage plants, wood toilet seats.
Enquiries: W. A. Coulthurst, Secretary, Board of Trade, Goderich, Ontario.

Granby—Quebec Province—Shefford District—Population (1941) 14,197.

Newspapers: La Voix de l'Est; La Revne de Granby (French); *Leader-Mail.*

Grand Mère—Quebec Province—St. Maurice-Lafleche District—Population (1941) 8,608.

Newspapers Le Laurentien; Union Nationale.

Guelph—Ontario Province—Wellington District—Population (1941) 22,273—Altitude 1,170 feet—Area 3,014 acres—Rateable Value $19,051,160 (1947).

Newspapers: The Guelph Daily Mercury; The Guelph Review (weekly).

Principal Local Industries: Hardware, stoves, household appliances, power tools, restaurant equipment, electric motors, transformers, carpets, electric wire, textile, rubber, preserving and pickling, hat bodies (wool and felt), paper boxes, foundries.

Quarry: Lime.

Agricultural Products: Butter, milk, cream, cheese, eggs, beef, pigs and sheep.

Halifax—Nova Scotia Province—Halifax District—Population (1941) 70,488.

Newspapers: Chronicle; Herald; Mail; Star.

Hamilton—Ontario Province—Wentworth County District—Population (1941) 166,337—Altitude 275 feet—Area 10,324 acres—Rateable Value $191,855,100.

Industries wishing to establish in the community are offered no bonus or concessions whatsoever. Readily available and applicable to all industries are such services as water, sewer, gas, electric power, etc.

Newspapers: The Hamilton Spectator; The Hamilton Review; The Hamilton News.

Principal Local Industries: 500 diversified industries, basic steel, iron, textiles, electrical apparatus, etc.

Quarries: Limestone quarries nearby.

Agricultural Products: Fruits, vegetables, grains.

Enquiries: H. D. Fearman, Commissioner of Industries, Industrial and Publicity Department, City Hall. D. A. Robbins, Manager, Chamber of Commerce, Terminal Building.

Hanover—Ontario Province—County of Grey District—Population (1941) 3,290—Altitude 918 feet—Area 520 acres—Rateable Value $2,162,755.

Hanover with a population of 3,540 is located 38 miles south of Owen Sound, and is served by Canadian Pacific and Canadian National Railways, as well as several motor transport companies. Hanover possesses handsome public buildings, up-to-date retail stores, charming residences. It is a very progressive and rapidly progressing community, surrounded by a lake-dotted country, in one of the best mixed farming districts in Southern Ontario. Power is distributed by the Ontario Hydro Electric Power Commission and the water supply is adequate. Attractive industrial sites are available.

Newspaper: Hanover Post.

Principal Local Industries: 7 furniture factories, 2 hosiery mills, 1 flour mill, 1 dairy products, 2 dairies.

Agricultural Products: General mixed farming district.

Enquiries: A. J. Metzger, Mayor, Town of Hanover. D. D. Brigham, Clerk, Town of Hanover.

Hawkesbury—Ontario Province—County of Prescott District—Population (1941) 6,263.

Hawkesbury, on Ottawa River, is midway between Ottawa and Montreal with which it is connected by provincial highways.

Hawkesbury is served by the Canadian National Railway and connections with Canadian Pacific Railway. There is shipping by the Ottawa River via Hawkesbury and Montreal to the sea.

Hawkesbury has a municipally owned system of water works, and a splendid rapid sand filtration plant.

There are special rates for industrial purposes, and chemical analysis of water is furnished upon request. Electricity is supplied by the Gatineau Power Company and competitive electric rates are assured.

Real estate owners offer any acreage of land required free of charge along or by a railroad track or sliding, and in addition municipal authorities will accord a nominal fixed assessment for a period of ten years. Hawkesbury always having been an industrial centre, labour has always been plentiful and stable, and there has been no trouble since 1918.

There are hotels, several schools, two banks, four hospitals and churches, theatres and a Golf and Country Club. There is an Airport, and a Flying Club is in operation.

Newspapers: Le Moniteur; The Echo; Le Carillon.

Principal Local Industries: Pulp and paper mill, sash and door factories, shirt factory, ladies' wear, glove factory.

Enquiries: Secretary, Board of Trade, Hawkesbury, *or* Mr. John B. Woods, Chairman, Board of Trade, Hawkesbury.

Hespeler—Ontario Province—Waterloo County District—Population (1941) 3,058—Altitude 1,000 feet—Area 530½ acres—Rateable Value $2,599,348.

Newspaper: Hespeler Herald.

Principal Local Industries: 2 textile, knitted outerwear, enamelware, machinery, tools and pipe wrenches, washing machines, high grade furniture, metal products, stoves and furnaces, lightning rods, hockey sticks and sleighs.

Enquiries: Mr. W. H. Kinzel, Clerk, Hespeler, Ontario.

Hull—Quebec Province—Hull District—Population (1941) 32,947—Altitude 178 feet—Area 4,000 acres—Rateable Value $36,558,350.

Hull is located on the North shore of the Ottawa River, at the discharge of the Gatineau River.

It is served by the Canadian Pacific Railway and Canadian National Railway.

It has a Chamber of Commerce and Junior Chamber of Commerce.

Electric power at reasonable rates is available for industries and there are convenient industrial sites within the City and its immediate vicinity.

Newspapers: Le Progrès de Hull and *l'Opinion de Hull.*

Principal Local Industries: Pulp, paper, cement, matches, jewels, lumber, axes, broom, clothing, meat packing.

Quarries: Stone and mica.

Agricultural Products: Milk, cheese, meat, wheat, etc.

Enquiries: The City Clerk, City Hall, Hull, Quebec.

Iberville—Quebec Province—Iberville District—Population (1941) 3,454—Area 685 acres.

Facilities: Canadian Pacific Railway and Canadian National Railways, Provincial Transport (bus).

Newspapers: Canada Français; The News; La Presse.

Principal Local Industries: Silks, electric cables accessories, monuments, agricultural machinery, tools.

Quarry: Brodies Limited Quarry.

Enquiries: City Hall, Iberville, Province of Quebec; Chambre de Commerce, Iberville, Province of Quebec.

Ingersoll—Ontario Province—Oxford District—Population (1941) 5,782.

Newspaper: Tribune.

Inverness—Nova Scotia Province—Inverness County District—Population (1941) 2,975—Area 2,000 acres.

Mines: Coal.

Enquiries: Board of Trade.

Joliette—Quebec Province—Joliette District—Population (1941) 12,749—Altitude 196 feet—Area 1,686 acres—Rateable Value $7,312,750.

Newspapers: L'Etoile du Nord; L'Action Populaire; Joliette Journal.

Principal Local Industries: Steel, wools, yarns, paper, tobacco, woven and knitted garments, clothes and textiles.

Quarries: Lime.

Agricultural Products: General farm products, tobacco.

Jonquière—Quebec Province—Chicoutimi District—Population (1941) 13,769.

Kamloops—British Columbia Province—Yale District—Population (1941) 5,959—Altitude 1,160 feet.

Kamloops, with a population of 14,000, is a divisional point for two railways, the Canadian National and the Canadian Pacific.

There are fruit packing houses and hop yards, with a growing acreage.

Cattle is the chief industry, cattle being shipped from all over the interior of British Columbia. There is a spring fat stock sale, and a fall bull sale; people come from all over British Columbia and Alberta to these events.

On July the 1st and 2nd there is a Stampede, two days of carnival and fun, typical of the west, with cowboys and Indians in regalia.

There are good schools and a 200 bed hospital.

The Kamloops area with approximately 100 lakes, is renowned for good fishing. There are many resorts and fishing camps, to which thousands of tourists come during the summer months. Kamloops is an ideal spot for big game hunters, there being Elk, Moose, Deer, Caribou, Bear, Grizzly, Goat and Sheep.

Newspaper: Kamloops Sentinel.

Principal Local Industries: Cattle, logging, sheep, fruit, hops.

Agricultural Products: Fruit and vegetables.

Enquiries: Kamloops Tourist Bureau, Manager, Iris C. Mix, Leland Hotel, Kamloops.

Kapuskasing—Ontario Province—Cochrane District—Population (1941) 3,431.

Newspaper: Northern Tribune.

Kelowna—British Columbia Province—Okanagan District—Population (1941) 5,118—Altitude 1,150 feet—Area 1,525 acres—Rateable Value Over $10,000,000.

Kelowna, on Lake Okanagan, was incorporated in 1905, and is the heart of the world-famous Okanagan Fruit Belt. The population has increased steadily to over 10,000 in the City and over 20,000 in the trading area, and its climate is regarded as the most equitable in Canada, rainfall averaging less than 12 inches annually. Both the Canadian National Railway and Canadian Pacific Railway operate daily train services and in addition there are full bus and plane schedules.

An adequate chlorinated water supply, sewage disposal system, electrical services, attractive parks, year round entertainment and sports facilities, modern schools and churches, in addition to outstanding scenery, has made this the fastest-growing community in Canada.

The recently opened Industrial Zone in which new industries can purchase low-priced land with full facilities, represents an investment of over $2,000,000. The Kelowna Board of Trade, established since 1906, will furnish full information upon request.

Newspaper: Kelowna Courier (twice weekly).

Principal Local Industries: Lumber, wine, boats, cement blocks, fishing tackle, candies, furniture, pipe, fruit-growing packing, processing industry includes two large canneries, six packing plants, two fruit-processing plants.

Enquiries: T. R. Hill, Secretary, Kelowna Board of Trade, 238, Bernard Avenue, Kelowna, British Columbia.

Kenogami—Quebec Province—Chicoutimi District—Population (1941) 6,579—Altitude 325 feet—Area 427½ Rateable Value $13,177,650.

Kenogami is one mile from a railway; 25 miles from an aerodrome and 25 miles from a harbour. It has a Chamber of Commerce.

Principal Local Industries: Newsprint, sash and door manufacture.

Kenora—Ontario Province—Kenora-Rainy River District—Population (1941) 7,745.

Newspaper: Miner and News.

Kentville—Nova Scotia Province—Kings County District—Population (1941) 3,928—Altitude Sea level—Area two square miles.

Newspaper: Kentville Advertiser.

Principal Local Industries: Dominion experimental farm, food processing.

Enquiries: Ald. Macdonald, Secretary, Board of Trade, Kentville.

Kingston—Ontario Province—Frontenac County District—Population (1941) 30,126—Altitude 232 feet—Area 2,700 acres—Rateable Value $30,503,120.

Kingston, founded in 1673, is situated at the foot of Lake Ontario and the mouth of the River St. Lawrence. There is a university and a military college.

Newspaper: Whig-Standard Publishing Company.

Principal Local Industries: Aluminium, nylon yarns, locomotives, leather, ceramics, batteries, woollens and worsted cloth, dye-stuffs, picture frames, shipbuilding, biscuits, bread and cakes.

Enquiries: J. M. Hughes, Industrial Commissioner and Manager, Kingston Chamber of Commerce.

Kitchener—Ontario Province—Waterloo County District—Population (1941) 35,657—Altitude 1,100 feet—Area 3,477 acres—Rateable Value $38,000,000.

Kitchener, with a population of 40,000, situated in the heart of thriving western Ontario is referred to as "The Industrial City." It has some 161 establishments, manufacturing more than 215 diversified products.

It is surrounded by some of the most fertile farming land in Canada.

A city of fine homes, 80 per cent of which are owned by the people living in them. Kitchener boasts 11 parks, 3 golf courses, 5 bowling greens, and a large municipal outdoor swimming pool.

Kitchener is separated by only a street from Waterloo and the two cities are repeatedly referred to as the " Twin Cities."

Newspaper: Kitchener-Waterloo Record.

Principal Local Industries: Rubber tyres and footwear, boots and shoes, furniture, tanning, shirts, luggage, gloves, meat packers, candy, veneer, metal products, radios, spring products, buttons, film and plastic products, twines, etc.

Agricultural Products: Cheese, sausages, butter, etc.

Enquiries: Vic. McKenty, Secretary-Manager, Kitchener Chamber of Commerce, City Hall, Kitchener, Ontario.

Lachine—Quebec Province—Jacques Cartier District—Population (1941) 20,051.

Newspaper: Le Messager.

Lachute—Quebec Province—Argenteuil County District—Population (1941) 5,310—Rateable Value $75,000.

Newspaper: Watchman.

Principal Local Industries: Woollen goods, textiles, shuttle manufacturing, paper, milk caseine.

Agricultural Products: Milk, cattle.

Enquiries: The Lachute Chamber of Commerce, P.O. Box 51, Lachute, Quebec.

Laprairie—Quebec Province—Beauharnois-Laprairie District—Population (1941) 2,936.

La Salle—Quebec Province—Verdun District—Population (1941) 4,651.

La Tuque—Quebec Province—Champlain District—Population (1941) 7,919.

Newspapers: L'Echo; La Sentinelle.

Lauzon—Quebec Province—Lévis District—Population (1941) 7,877—Rateable Value $0·80 per cent.

Lauzon, two miles from Quebec, is served by the Canadian National and the Canadian Pacific Railways. Lauzon has deep water wharves. It is well situated for industries, with fine sites and river and railway facilities.

Newspaper: La Tribune de Lévis.

Principal Local Industries: Ship yards, suitcases, doors and sashes, foundry.

Agricultural Products: Vegetables.

Enquiries: Chamber of Commerce of Lévis and Lauzon.

Laval des Rapides—Quebec Province—Mercier District—Population (1941) 3,242.

Leamington—Ontario Province—South Essex District—Population (1941) 5,858—Altitude 630 feet—Area 900 acres—Rateable Value $5,000,000.

Leamington, on the north shore of Lake Erie, is thirty-three miles from the Windsor-Detroit Industrial area with which it is connected by King's Highway No. 3. Leamington is situated in a very wealthy fruit, vegetable and tobacco district, and farmers are prosperous due to the fact that crops here are earlier than in any other section of Eastern Canada.

There is excellent municipally owned artesian well water. Auxiliary pumping plant with the unlimited supply of water from Lake Erie is available for industrial purposes. There is ample Hydro Power to meet all industrial needs. The entire district is supplied by natural gas.

Two railroads make direct connections with the Canadian National Railway and the Canadian Pacific Railway. On Lake Erie there are dock and ample warehousing facilities. Shipments are made direct to all parts of the world during navigation. The Airport operates throughout the year and there is Charter freight, express and passenger service anywhere. Leamington is situated in the most populous district in Canada. Within a radius of 250 miles are Windsor, Sarnia and Niagara Falls, all ports of entry, London, Hamilton and Toronto. Leamington is also a port of entry. Leamington is situated between the two most heavily industrialised areas: (Windsor-Detroit 33 miles, Toronto-Hamilton 200 miles), making it ideal for industries serving these two areas.

There is ample supply of day and semi-skilled labour, many with excellent war industry training and experience. None of the labour problems found in larger industrial centres have been experienced here to date. There are numerous industrial sites available, adjacent to rail, water and highway transportation. The location, climate, transportation facilities, labour picture, steady growth and general stability of Leamington make it well worth serious consideration for industrial location.

Newspaper: Leamington Post and News.

Principal Local Industries: Food products, tobacco.

Agricultural Products: Tobacco, tomatoes, hothouse vegetables, potatoes, cucumbers, cabbage, cauliflower, grains, etc.

Enquiries: Planning and Development Committee, Town of Leamington, Ontario, Canada.

Leaside—Ontario Province—York County District—Population (1941) 6,183—Area 1,125 acres.

Newspapers: Leaside Press; Leaside News.

Enquiries: R. Burgess, Clerk.

Lethbridge—Alberta Province—Lethbridge District—Population (1946) 16,206—Altitude 2,983 feet—Area 6,400 acres.

Lethbridge is the divisional headquarters of the Crow's Nest Pass line of the Canadian Pacific Railway to Vancouver, and 125 air miles south-east of Calgary. It is the centre of one of the largest farming and ranching districts in Canada—some 7,000,000 acres, of which a quarter of a million acres are presently under irrigation.

Lethbridge is the business centre of a predominantly agricultural area, and its growth is mainly due to that fact. However, there are many industries within or near the city which have contributed to its progress, the most important of which are the manufacturing plants for the processing of sugar beets into sugar. The Canadian Sugar Factories, Limited, operate plants at Raymond and Picture Butte, and a third is being built at Taber at a cost of $3,500,000. The leading industry in the city is coal mining, which employs over 500 miners with a payroll of approximately $6,500,000 in 1947. Evidence of the growth of Lethbridge is shown in the fact that since 1940 there have been newly established in the city 25 industries, 15 wholesale firms and 53 retail outlets. The chief manufacturing industries in the city and district are beet sugar refining, vegetable canning, flour milling, brewing and farm machinery production.

Large co-operatives operate in Lethbridge including sheep breeders, livestock breeders and feeders, vegetable growers, and egg and poultry producers. Plans are also underway for a co-operative meat packing plant.

There are many attractive sites available in and near the city for industry. The town is served by all utilities. Rates for power, water and natural gas are reasonable. Served by Canadian Pacific Railway spur tracks.

Newspaper: The Lethbridge Herald.

Principal Local Industries: Vegetable canning, flour milling, brewing, macaroni food products, alfalfa meal and breakfast cereals, office furniture, boxes, cinder bricks, sash and doors, iron and bronze castings, truck and bus bodies, bakeries, dairies, welded products, seed cleaning, upholstering, battery assembling, sheet metal works, billboards and showcards, machinists.

Mines: Coal mines (domestic coal) ; steam coal in other fields in Southern Alberta.

Agricultural Products: Wheat, oats, rye, barley, flax, sweet clover, timothy, sugar beets, fresh vegetables, (potatoes, cabbage, carrots, turnips, cucumbers, beets, corn, parsnips, green peas, lettuce, etc.), canning vegetables (peas, beans, corn, carrots, pumpkin, beets, etc.), frozen foods, cattle and hogs, sheep and wool, eggs and poultry, milk, cream, butter, livestock feeds, cheese, pickles.

Enquiries: The Secretary, Lethbridge Chamber of Commerce.

Lévis—Quebec Province—Lévis District—Population (1941) 11,991—Altitude 300 feet—Area 2,263 acres—Rateable Value $12,660,979.

Lévis is situated on the south shore of the St. Lawrence River, opposite the ancient capital, Quebec. It is an important point of communication for the whole north-eastern portion of the Province of Quebec, south of the St. Lawrence River. It has a natural port which is part of the Quebec Harbour. Lévis has recently established an industrial centre in the upper part of the town which has been growing steadily since the start, and several factories are now in full operation.

Newspaper: La Tribune de Lévis.

Principal Local Industries: Shipbuilding, lumber, and woodenware, foundries, textiles.

Agricultural Products: General.

Enquiries: Lévis Chamber of Commerce, Mr. Adrien Begin, Secretary.

Lindsay—Ontario Province—Victoria County District—Population (1941) 8,403—Area 2,000 acres.

Lindsay, with a population of over 10,000 people, is the gateway to the Kawartha Lakes, ideally located on No. 7 Highway, and is surrounded by one of the best farming communities in the Province of Ontario.

It is served by both the Canadian Pacific Railway and the Canadian National Railway, and also bus and transport services.

The streets are well wooded and nearly all paved, and Lindsay has beautiful homes, schools and churches.

It is the shopping centre for many thousands of tourists who visit its summer resorts every year. During the past two or three years, many fine new industries have been attracted to Lindsay. There are many fine sites with or without railway facilities, and people desiring to establish themselves in the industrial life of Canada will be given a hearty welcome. The Town is entirely Anglo-Saxon, and the type of labour is of the very best.

Newspapers: The Lindsay Daily Post; The Weekly Watchman-Warder.

Principal Local Industries: Wool mills, chemicals, crayons, lumber, knitted goods, machinery and foundry, soda water works, toys, creamery, and textiles.

Agricultural Products: Wheat, flax, oats, barley, corn, alsike, etc.

Enquiries: Mr. D. McQuarrie, Industrial Commissioner, Lindsay, Ontario.

Listowel—Ontario Province—Perth County District—Population (1941) 3,013—Altitude 1,250—Area 955 acres—Rateable Value $1,924,100.

Newspaper: The Listowel Banner (weekly).

Principal Local Industries: Furniture, textiles, lumber, burial caskets, dry milk powder, cloth and yarn.

Agricultural Products: All kinds.

Enquiries: W. H. White, Town Clerk-Treasurer, Listowel, Ontario, Canada.

Liverpool—Nova Scotia Province—Queens-Lunenburg District—Population (1941) 3,170.

Newspaper: Advance.

London—Ontario Province—Middlesex County District—Population (1941) 78,264—Altitude 880 feet—Area 11·3 square miles—Rateable Value 42 mills.

London, Ontario, " The Forest City," in the picturesque valley of the River Thames is 115 miles west of Toronto and 114 miles east of Detroit, Michigan, in one of the richest agricultural districts of Ontario. It is the commercial, industrial and financial capital of Western Ontario. The city is served by main lines of the Canadian Pacific and Canadian National Railways. Through the city-owned London and Port Stanley Railway (electric) connections are made with the New York Central and Wabash and Pere Marquette Railways.

The city is located on Provincial Highways Nos. 2 and 4 and 22. It is served by Trans-Canada Airlines with daily flights to Toronto, Windsor, Cleveland and other points.

There are many good industrial sites available and the London Chamber of Commerce will be glad to provide, gratuitously, any information desired. The city offers a clean, well-maintained community—excellent labour relations—fine homes and recreational facilities—to potential new industries.

Newspaper: London Free Press.

Principal Local Industries: Agricultural implements, barrels, biscuits, confectionery, boilers, boots and shoes, breakfast foods, cardboard boxes, beer, corrugated shipping containers, dairy products, electrical refrigerators, engines, furnaces, hosiery, printing and lithographing, radio sets, stoves and tanks.

Agricultural Products: Mixed farming, tobacco, potatoes.

Enquiries: London Chamber of Commerce, 382, Wellington Street, London, Ontario.

Longueuil—Quebec Province—Chambly-Rouville District—Population (1941) 7,087.

Louiseville—Quebec Province—Trois-Riviéres District—Population (1941) 3,542—Altitude 25 feet—Area 225 acres—Rateable Value $2,500,000.

Louiseville, situated 70 miles from Montreal and at 20 miles from Trois-Riviéres on the north shore of St. Lawrence River along the Highway Montreal-Quebec, has a navigable harbour on the Riviére-du-Loup.

The Canadian Pacific railroad runs along the city for half a mile.

Louiseville has a Chamber of Commerce, a club and two fashionable hotels for the accommodation of tourists and travellers.

For the establishment of local factories along the Canadian Pacific Railroad, Louiseville offers the advantage of a lower rate in taxes and also the privilege to be located in a place where the municipal evaluation is quarter of the value. The rate of all municipal taxes is $1·50 per $100.

Newspapers: L'Echo de Louiseville; Le Progrès de Louiseville.

Principal Local Industries: Textiles, shirts, clothes, air cell insulation products, manufacturing doors and sashes, welding, vulcanisation, bottling (dairy), printing, dyeing and cleaning.

Agricultural Products: All agricultural products; co-operative butter.

Enquiries: Léo Lupien, *i.e.*, City Manager, Postal case 187, Louiseville.

Magog—Quebec Province—Stanstead District—Population (1941) 9,034—Altitude 725 feet—Area 1,600 acres—Rateable Value $7,000,000.

Magog, with a population of 11,000, is situated on beautiful Lake Memphremagog. It is served by the Canadian Pacific Railway and 1st class (terminal) in and out roads. 80 per cent of its streets are paved. There is power and water sewers in all streets, and municipal service, included in general tax of 10 mills, for the removal of snow and garbage. There is no special tax whatever. The evaluation is based on 36 per cent of real value. The Municipal authorities and the local special group are much in favour of industrial plant and the town will finance such developments if necessary. There is a first-class supply of water for industrial purposes. Magog is an advantageous locality for industries and residences. It is close to Sherbrooke and only 80 miles from Montreal. There are good facilities of boat shipment throughout Canada. There is accommodation for tourists in hotels and chalets, and the fishing and hunting are good.

Newspapers: Chronique de Magog; La Tribune (Sherbrooke. Local office.

Principal Local Industries: Textiles, spools, wooden loom parts, etc., foundries, rip pads.

Agricultural Products: Orchards, Gardening, Farming.

Enquiries: Tourist office, *c/o* Mr. Calixte Chamberland, Chamber of Commerce St., Magog.

Malarctic—Quebec Province—Pontiac District. Population (1941) 2,895.

Matane—Quebec Province—Matapedia-Matane District—Population (1941) 4,633.

Medicine Hat—Alberta Province—Medicine Hat and Redcliffe District—Population (1946) 12,680—Altitude 2,181 feet—Area 9,600 acres—Rateable Value $8,667, 605.

Medicine Hat is situated in a natural valley and the city covers over 10,000 acres of river flat and hillside. The South Saskatchewan river, three hundred yards wide at this point, flows eastwards through the city providing an abundance of pure water for all purposes.

The discovery of the great wealth of the city, natural gas, was made in 1883 by pure accident, but the possibilities remained unexploited until 1905 when civic officials took the initiative and drilled to a depth of 1,010 feet, where the gas showed a pressure of 550 lbs. to the square inch.

Encouraged by the promise of free natural gas, free building sites and taxation exemptions, large industries established in the city.

In the past seven years the number of residents has increased to about 13,000.

Newspaper: Medicine Hat Daily News (daily).

Principal Local Industries: Brick and tile, linseed oil, potteries, glass, manufacture of irrigation farm implements.

Mine: Coal mine.

Agricultural Products: Cattle, corn, tomatoes, onions, wheat, coarse grains, flowers and plants (21½ acres under glass).

Mègantic—Quebec Province—St. François District—Population (1941) 4,560—Altitude 1,300 feet—Area 4,670 acres—Rateable Value $3,000,000.

Mègantic is served by the Canadian Pacific Railway—division point—the Quebec Central Railway—terminal point—Provincial transport buses and the Beauce-Frontenac bus. There is an aerodrome and Mègantic has a Chamber of Commerce.

Newspaper: L'Echo de Frontenac.

Principal Local Industries: Veneer shop, saw mill and pulp mills, milk pasteurisation.

Agricultural Products: General—except corn.

Enquiries: Syndicat d'Initiative Beauce-Frontenac Lac Mègantic, Quebec.

Melville—Saskatchewan Province—Melville District—Population (1946) 3,626.

Newspaper: Advance.

Merritton—Ontario Province—Niagara Peninsula District—Population (1941) 2,993—Altitude 576 feet—Area 542 acres.

All forms of transport with Welland Canal, 1 mile away. C.N.R. electrical Nanaimo transport companies serving this community. Unlimited power supply from Niagara.

Newspaper: Standard.

Principal Local Industries: Paper, tissue paper, steel products, precision products, hardware, vehicle parts.

Enquiries: Will F. Schooley, Town Clerk, Merritton, Ontario.

Midland—Ontario Province—Georgian Bay District—Population (1941) 6,800—Altitude 578·5 feet—Area 1,500 acres—Rateable Value $820 per acre.

Midland is located on the lower end of Georgian Bay, 89 miles from Toronto by paved highway No. 11 and 27, 119 miles by rail north-west of Toronto, and 383 miles from Montreal.

Midland is served by Canadian National and Canadian Pacific Railways, and has excellent package freight service by water to Fort William and Port Arthur via Canadian Pacific Steamships from nearby Port McNicoll. Fast Express delivery is provided by Canadian National Express and truck transportation to and from Toronto and other points.

Midland is one of the largest grain shipping ports on the Great Lakes. Seaplane service is available from Midland to Parry Sound and other points by charter with bases in Midland and Parry Sound.

The Midland Chamber of Commerce (Incorporated) has provided an efficient service to the town, resulting in the establishment of several important industries. It has developed the tourist facilities of this attractive district to a marked degree.

Complete Industrial Survey of Midland is available to all interested industrialists on request. Every assistance is provided to those desiring to establish industries in Midland.

Adjacent holiday facilities make Midland " A fine place to live—a fine place to be in business."

Newspaper: Midland Free Press Herald (weekly).

Principal Local Industries: Shipbuilding (commercial and pleasure craft), flour mills, woollen mill, shoe manufacture, optical lenses, automotive equipment, woodworking, machine shops, ladies' dresses, silk mills, grain elevators (4), coal transhipment storage, bunkering, canvas goods for marine trade, tents and awnings.

Quarry: Limestone.

Agricultural Products: Potatoes and hogs principally. Hay, wheat and corn, fruits, berries and vegetables.

Enquiries: C. H. Bushnell, Industrial Commissioner, Midland Chamber of Commerce, Midland, Ontario.

Mimico—Ontario Province—York W.R. District—Population (1941) 8,070.

Moncton—New Brunswick Province—Westmorland District—Population (1941) 22,763—Altitude 10-50 feet—Rateable Value: Total assessment on which taxes levied $24,731,385 (1946). Total property valuation $44,195,110 (1946).

Moncton is located on the Peticodiac River in the south-eastern section of the Province about 90 and 190 miles by rail from the winter ports of Saint John and Halifax respectively.

This city has developed into an important manufacturing, transportation and distribution centre. Headquarters for the Atlantic Region of the Canadian National Railways is located here, embracing car shops, round houses and general offices. Due to the geographical location of the city all freight destined to other parts of New Brunswick, Prince Edward Island and Nova Scotia passes through Moncton.

An excellent network of highways links Moncton with all parts of Canada and the United States.

The Moncton Airport is owned and operated by the Dominion Department of Transport. There are three runways. The Airport is equipped with modern radio range, control tower and approach lighting facilities. An instrument landing system is presently being installed and runways extended.

The facilities of the Airport are used by T.C.A., North East Air lines, B.O.A.C., Pan-American Airways and by Maritime Central Airways, who provide service to Saint John, New Brunswick; Summerside, Prince Edward Island; Charlottetown, Prince Edward Island; Fredericton, New Brunswick; Halifax, Nova Scotia.

Industry and distribution facilities are welcome. Areas served by trackage are set aside for industry. Vacant plant property varies from time to time.

Newspapers: Moncton Transcript; Moncton Daily Times; L'Evangeline (French weekly).

Principal Local Industries: Biscuits, cotton and woollen knitted garments, paints, chemicals, stoves and furnaces, millwork, signs, flavouring extracts, welding supplies, wire fencing, meat packing plant.

Enquiries: The Secretary, Moncton Board of Trade, Imperial Block, Moncton, New Brunswick.

Montmagny—Quebec Province—Montmagny District—Population (1941) 4,585—Altitude 15 feet—Area 120 acres—Rateable Value $4,068,426.

Newspapers: Le Courier de Montmagny; Le Peuple.

Principal Local Industries: Silk, stoves, furniture, coffins, electric refrigerators, electric tanks.

Agricultural Products: Corn, oats, potatoes.

Montreal—Quebec Province—Hochelaga County District—Population (1941) 903,007 (Greater Montreal 1,139,921)—Altitude varies from 50 feet above sea level to a maximum of over 750 feet at the top of Mount Royal in the virtual centre of the City—Area 50 square miles—Rateable Value $1,295,000,000 (1946).

Montreal is the largest city in the Dominion; the farthest inland port in the world; and one of the greatest centres of electrical power resources in the Western Hemisphere. In a brief span of years, it has grown from a tiny hamlet to become one of the foremost cities of the world. Its future holds unlimited possibilities. Montreal has an area of 50 square miles, and Montreal Island is 32 miles long by 7 to 9 miles wide. There are nearly 700 miles of paved streets and 1,000 miles of sidewalks, with a vast underground network of sewers and water mains. To take care of urban transportation, there were, in 1946, 450 miles of tramway track and bus routes comprising 92 regular circuits. Greater Montreal's population (1946 estimate) is 1,325,000; City proper, 1,096,060 including a floating population of 85,000. About 66 per cent of the inhabitants of Montreal are of French origin; some 20 per cent are of British origin, the balance being made up of important groupings of other nationalities, thus making of Montreal one of the most cosmopolitan cities in Canada.

The harbour of Montreal is situated on the St. Lawrence river approximately 1,000 miles inland from the Atlantic coast, and is reached by ocean shipping through a dredged channel having a minimum depth of 32½ feet. It is served by both Canadian railways connected to the harbour front by 60 miles of terminal railway operated by the National Harbours Board. The harbour is open to navigation from about the middle of April to the beginning of December of each year. The Board operates main piers, wharves and jetties providing about 10 miles of berthing accommodation, with a cold storage warehouse and floating and locomotive cranes.

An outstanding characteristic of Montreal's industrial set-up is the exceptionally wide diversity of industrial activities. Particularly in the consumers' goods lines, there are few products made in Canada which are not made, on a small or large scale, in Montreal. In number of establishments, capital employed, number of employees and value of production, the clothing industry is in the lead. It is estimated that there is available in the Province of Quebec a potential 13,064,000 horsepower of which 5,750,000 h.p. has already been developed, or more than one half of the total for the Dominion. Montreal is the transportation centre of the Dominion. Here are located the headquarters of the two great transcontinental railways, the Canadian Pacific and the Canadian National. Ocean, lake and river transportation converge at Montreal. The City is a terminal for American, Canadian and overseas air routes.

Newspapers: Principal English and French language papers: *Gazette; Herald; Star; Standard; La Presse; La Patrie; Le Canada; Le Devoir; Le Petit Journal.*

Principal Local Industries: Clothing, milling, tobacco, railway rolling stock, electrical apparatus and supplies, slaughtering and meat packing, brass and copper products, beer, boots and shoes, petroleum products, sheet metal products, paints, pigment and varnishes, primary iron and steel, aircraft and aircraft parts, fur goods, biscuits, confectionery, cocoa and chocolate.

Enquiries: City of Montreal Economic and Tourist Development Bureau, Room 806, Dominion Square Building, Montreal.

Montreal East—Quebec Province—Montreal District—Population (1941) 2,355—Altitude 34·2 feet—Area 3,064 acres—Rateable Value $19,000,000.

The town of Montreal East is situated on the St. Lawrence River. The town is served by the Canadian National Railways. It has severn modern wharves to handle incoming and outgoing freight. The town is only five miles away from the business centre of Montreal.

Principal Local Industries: Oil refineries, cement, copper refinery, bedding, hats, wire and cable, plastics.

Enquiries: Secretary-Treasurer, 11370 Notre-Dame Street.

Montreal North—Quebec Province—Montreal District—Population (1941) 6,152.

Montreal West—Quebec Province—Montreal District—Population (1941) 3,474.

Moose Jaw—Saskatchewan Province—Population (1946) 22,599—Altitude 1,778 to 1,840 feet—Area 9,760 acres.

Moose Jaw is the largest industrial city in the Province of Saskatchewan. The city is the grand divisional point for Saskatchewan of the Canadian Pacific Railway Co., which has its headquarters for the Province in Moose Jaw. It is the terminus of the Soo Line Railway running directly to Minneapolis, St. Paul and Chicago. It is also on the Canadian National Railway Line. Nine railways radiate directly from the city. Moose Jaw is served by Canadian Pacific Air Lines Limited which connects with the Trans-Canada Air Lines at Regina and furnishes a daily passenger, mail and express service from Moose Jaw to Regina, Saskatoon, North Battleford and Prince Albert. The Municipal airport is one of the three customs airports in Saskatchewan. There is an efficient Chamber of Commerce which, conducting city tours, furthering the development of highways and supporting any plans of benefit to the city, serves the public.

An artesian well supplies the city with water, rich in mineral salts; used in an indoor swimming pool.

Newspaper: Moose Jaw Times-Herald.

Principal Local Industries: Rock wool, millwork, foundry, vegetable oils, woollen goods, flour mills, refineries, bag factory, meat packing plants, creameries, railways, power plant.

Agricultural Products. Grain, livestock, dairy produce, oil from rape, flax and sunflower seed.

Enquiries: The Chamber of Commerce, Moose Jaw, Saskatchewan.

Mount Royal—Quebec Province—Jacques-Cartier District—Population (1941) 4,888.

Nanaimo—British Columbia Province—Newcastle District—Population (1941) 6,635—Altitude sea level—Area 1,080 acres—Rateable Value: Total assessed value $7,711,849. Taxable value $6,701,684.

Nanaimo, a thriving and progressive city on the East coast of Vancouver Island, is one of the oldest settlements on the Pacific coast. Strategically located 36 miles across the Gulf of Georgia from Vancouver, and equi-distant from Victoria to the south, and Courtenay to the north, with the Albernis forty miles to the west, it is the geographical centre of an area rich in natural resources. It is served by good roads radiating to the north, south and west, over which the Vancouver Island Coach Lines operate bus services. Rail connection to all principal points on the Island is provided by the Esquimalt and Nanaimo Railway. The Canadian Pacific Railway, through its British Columbia Coast Steamship Service, maintains a fast and frequent schedule for the handling of passengers, freight and automobiles between Vancouver and Nanaimo.

Newspaper: Nanaimo Free Press.

Principal Local Industries: Mining, logging, sawmills, shipbuilding, foundry, sash and door factory, tile and brick manufacturing, fishing, farming, dairying and assembly wharf.

Mines: White Rapids Mine and several smaller mines.

Agricultural Products: Vegetables, fruits and berries.

Enquiries: Nanaimo Tourist Information Bureau, Box 257, Nanaimo, British Columbia.

Napanee—Ontario Province—County Lennox and Addington District—Population (1941) 3,405—Area 1,480 acres—Rateable Value $1,949,000.

Newspapers: The Napanee Beaver; The Napanee Express.

Principal Local Industries: Furniture, iron works, biscuits, dairying, packing, canning.

Agricultural Products: Cattle, hogs, poultry, grain.

Nelson—British Columbia Province—West Kootenay District—Population (1941) 5,912—Altitude 1,800 feet—Area 751 acres land; 200 acres water—Rateable Value Land $1,668,579. Improvements $4,747,520.

Nelson is a busy, prosperous city, alive with vigorous civic and commercial enterprise.

Towards the end of the last century some remarkable claims were staked in the neighbourhood and some notable mines developed such as the Hall, the Silver King, the Kootenay Bonanza, and the Kohinoor. Later in its history the city became an agricultural rather than a mining centre, and it is notable to-day chiefly for the richness of its ranches. There are ample signs, however, of reviving interest in the mining angle.

Nelson is a divisional point on Crows Nest Line of the Canadian Pacific Railway.

Newspaper: The Nelson Daily News.

Principal Local Industries: Mining, lumbering, match box factory, brewery, jam factory.

Mines: Kenville mines; Alpine mine; Sheep Creek gold mines and others.

Agricultural Products: Apples, pears, plums, cherries, peaches and vegetables.

Enquiries: Nelson Board of Trade and Publicity Bureau.

Newcastle—New Brunswick Province—Population (1941) 3,781.

Situated on main line of Canadian National Railways, water terminal for ocean going steamers.

Newspaper: North Shore Leader.

Principal Local Industry: Lumbering.

New Glasgow—Nova Scotia Province—Pictou County District—Population (1941) 9,210—Area 4 square miles—Rateable Value approximately $6,500,000.

Canadian National Railway.—New Glasgow Airport. Good sites, cheap power and water.

Newspapers: Evening News (daily), Scotia Printers, Ltd; *Eastern Chronicle* (weekly), Hector Publishing Co.

Principal Local Industries: Woodworking plants, boiler shops, steel castings, large machine shops, bed springs, mattresses, woollen mills, foundries, soft drinks, clay sewer pipes, bricks, concrete building blocks, coffins, tinplate factories, railway cars, steel shafts, nuts, bolts, etc.

Mine: Coal mine in adjacent town.

Agricultural Products: 2 dairies, butter, cream, ice cream.

Enquiries: Chesley Fraser, President, Board of Trade.

New Liskeard—Ontario Province—Timiskaming District—Population (1941) 3,019—Altitude 580 feet—Area 1,213 acres—Rateable Value $2,464,407.

New Liskeard, on Lake Timiskaming, at the mouth of the Wabi River, is situated on No. 11 Highway, 316 miles north of Toronto and 102 miles north of North Bay.

It is served by the Northland Railway and there is a seaplane base situated at the mouth of the river, also used in the winter time by ski-equipped planes.

New Liskeard has a Board of Trade and there is also the Timiskaming Co-operative, doing a large business in livestock, feeds and grains, eggs and all farmers' produce. They also have cold storage lockers.

Newspaper: Timiskaming Speaker.

Principal Local Industries: Woodworking, match splints, iron foundry, machine works, ice cream, butter, boat building, seed cleaning, flour and lumbering.

Agricultural Products: Dairying and mixed farming.

Enquiries: Secretary-Treasurer, New Liskeard Board of Trade, New Liskeard, Ontario.

Newmarket—Ontario Province—York District—Population (1941) 4,026—Area approximately 35 acres—Rateable Value $2,983,000.

Newspapers: Newmarket Era and Express.

Principal Local Industries: Office furniture, calf hides, pencils, washing machines, vacuum cleaners, pressing machines, etc., small electrical appliances, caskets.

Agricultural Products: All kinds of agricultural products.

Enquiries: Wesley Brooks, Clerk-Treasurer, Town Clerk's Office, Main Street, Newmarket, Ontario.

New Toronto—Ontario Province—York County District—Population (1941) 9,504—Area 659 acres—Rateable Value $7,761,805.

New Toronto is located on the shores of Lake Ontario about 5 miles west of the city of Toronto limits. It is on No. 2 Highway and is served by the Canadian National Railway, who have one of their main yards here. New Toronto is the commercial and industrial centre of the district. There is an abundant supply of water at economical rates, and available sites for new industries. The Town Clerk will supply information.

Newspaper: The Advertiser (weekly, Fridays).

Prinicipal Local Industries: Automobile tyres, rod, tube and sheet brass and copper mill, canned soups, tin cans and paper containers, wall papers, simulated leather, distillery.

Enquiries: Town Clerk, 877, Lake Shore Road, New Toronto, Ontario.

New Waterford—Nova Scotia Province—Cape Breton District—Population (1941) 9,302—Altitude 67 feet—Area 1,300 acres—Rateable Value $3,229,325 (including exemptions).

Mines: Coal mines.

Enquiries: Department of Municipal Affairs, Halifax, Nova Scotia.

New Westminster—British Columbia Province—New Westminster District—Population (1941) 21,967—Altitude 43·5 feet at City Hall over sea level—Area 4,394 acres—Rateable Value Total assessed value of land $13,169,438. Total assessed value of improvements $32,803,998·70.

New Westminster, with a population of 33,000, is situated on the Fraser River, 15 miles from the Gulf of Georgia.

It is served by the Canadian Pacific Railway, the Canadian National Railway, the Great Northern Railway, the British Columbia Electrical Railway, 5 transport companies and 4 bus lines. Its port is open to all deep sea vessels.

The annual harvest of Fraser River salmon is over $35,000,000. New Westminster is the headquarters of the International Pacific Salmon Fishing Commission.

Newspaper: British Columbian.

Principal Local Industries: Lumber, machine manufacturing, wood-working, abbatoir, paper manufacturing, adhesives, glucose, distilled liquors, brewing.

Enquiries: Frank Wilson, Executive Secretary, New Westminster Board of Trade, P.O. Box 299, New Westminster, British Columbia, Canada.

Niagara (**Greater**)—City of Niagara Falls, Township of Stamford, Village of Chippawa—Ontario Province—Welland County District—Population (1941) Niagara Falls 20,589, Chippawa 1,385—Altitude 600 feet—Area City and Township, 36 square miles—Rateable Value $33,500,000.

Greater Niagara, situated at the great gateway between the Empire State of New York and Ontario, the Banner province of the Dominion of Canada, on the western shore of historic Niagara River, is each year host to millions of visitors who come from every point of the Continent and from all parts of the world. In a setting of unexcelled scenic grandeur, the community is within 500 miles of 75 per cent of the continent's population. Blessed also by a fine, salubrious climate, and placed in a splendid fertile land where grains as well as the finer fruits, peaches, pears, plums, apples, grapes and berries grow in profusion, the community offers the highest standard of pleasant living. Canada's delectable wines are mainly produced by the wineries of the district using the Niagara peninsula's renowned grape crop.

Newspaper: Evening Review (daily).

Principal Local Industries: Approx. 40 manufacturing plants, one of the largest crude abrasive manufacturing centres in the world, fertilisers, abrasives, sporting goods, carpet sweepers, electric batteries, containers, silverware, safes and vaults, canned fruits and vegetables, hoisting machinery, leather goods, porcelain insulators, railway track equipment, animal traps, razors, chains, corsets, etc.

Quarries: Several quarries.

Agricultural Products: Grains, peaches, pears, plums, apples, grapes, berries.

Enquiries: A. W. S. Bennett, Manager, Greater Niagara Chamber of Commerce, Chamber of Commerce Building, Niagara Falls, Ontario.

Nicolet—Quebec Province—Nicolet-Yamaska District—Population (1944) 3,751.

Newspaper: Le Nicoletain.

Noranda—Quebec Province—Rouyn-Noranda District—Population (1941) 4,576—Area 1,500 acres.

Noranda, a city of a population of 7,500 is situated in the North West of the Province of Quebec, in the mining district.

It is served by the Canadian National Railways and the Ontario Northland Railway.

Its principal local activity is mining.

Newspapers: Rouyn-Noranda Press; La Frontière.

Mines: Copper and gold mines.

Enquiries: Chamber of Commerce of Noranda.

North Battleford—Saskatchewan Province—The Battlefords District—Population (1946) 5,622—Altitude 1,670 feet—Area 4,450 acres—Rateable Value $5,500,000.

North Battleford was incorporated a village in the year 1905, a town in 1906 and a city in 1913; it is a railway centre and distributing area for north-western Saskatchewan being served by both Canadian National and Canadian Pacific Railways; it also has an aerodrome and is served by daily (except Sunday) aeroplane service by the C.P.A. connecting with the T.C.A. at Regina and Saskatoon.

Newspapers: North Battleford News Ltd.; North Battleford Optimist.

Principal Local Industries: Agricultural, sashes and doors, butter, aerated water, foundry, printing, electric power.

Agricultural Products: Dairy and poultry, beef cattle, swine, wheat, oats, barley, forage crops, garden fruits and wild fruits.

Enquiries: The Commissioner, Board of Trade, North Battleford, Saskatchewan.

North Bay—Ontario Province—Nipissing District—Population (1941) 15,599.

Newspaper: Nugget.

North Sydney—Nova Scotia Province—Cape Breton County District—Population (1941) 6,836—Altitude 50 feet—Area 1,200—Rateable Value $2,500,000.

Principal Local Industries: Fish processing, coal, bunkering, shipping, ship repairs, stove foundry, cold storage facilities.

Mines: Coal mines.

Enquiries: Secretary, North Sydney Board of Trade.

North Vancouver—British Columbia Province—Vancouver North District—Population (1941) 8,914.

Newspapers: Daily Province; News-Herald; Sun.

Oakville—Ontario Province—Halton District—Population (1941) 4,115.

Newspaper: Record.

Orillia—Ontario Province—Simcoe County District—Population (1941) 9,798—Altitude 928 feet—Area 2,580 acres—Rateable Value Land $1,699,300. Buildings $3,593,150.

Newspapers: Packet and Times; News Letter.

Principal Local Industries: Marine engine, carbon and alloy steel castings, clothing, sash and doors, worsted yarns, baby carriages, boat building, (pleasure craft) mining, pulp and paper machinery, slack cooperage stock, agricultural implements, hardwood flooring, electric ranges and appliances, porcelain enamel specialities, juvenile vehicles, and metal toys, wood specialties.

Agricultural Products: General farm products.

Enquiries: Mr. O. G. Smith, Board of Trade, Orillia, Ontario.

Oshawa—Ontario Province—Ontario District—Population (1941) 26,813.

Newspaper: Signs of Times.

Ottawa—Ontario Province—Carleton County District—Population (1941) 154,951, Greater Ottawa, 215,022—Altitude 202-9 feet—Area 6,109 acres—Rateable Value $189,284,671.

Ottawa, the capital of Canada, strategically located in the midst of beautiful natural surroundings, is served by efficient transportation services—the Canadian National Railway, the Canadian Pacific Railway, the New York Central, the Colonial Coach Lines, the Trans-Canada and Colonial Airlines.

A strong Board of Trade stands ready to answer all inquiries and to aid new industries to find suitable locations.

The Ottawa-Hull District Industrial Board will supply detailed information to prospective industrialists, pertaining to their particular type of industry.

Newspapers: English : *Ottawa Morning Journal; Ottawa Evening Journal; Ottawa Farm Journal; Ottawa Morning Citizen; Ottawa Evening Citizen;* French: *Le Droit.*

Principal Local Industries: Agriculture, pulp, paper, sportmen's supplies, stoves, electric ranges, washing machines, axes, shovels, cement.

Quarries: Rock quarries, gravel pits.

Agricultural Products: Mixed farming, cheese, butter, cream, milk.

Enquiries: The Secretary, Ottawa-Hull District Industrial Board, Board of Trade Rooms, Ottawa, Ontario.

Outremont—Quebec Province—Montreal District—Population (1941) 30,751—Altitude 400 feet—Area 975 acres—Rateable Value $38,562,626.

Outremont is a residential suburb of the city of Montreal.

Owen Sound—Ontario Province—Population (1941) 14,002—Altitude 605 feet—Area 2,909 acres.

Owen Sound is situated upon the south shore of Georgian Bay, 110 miles northwest of Toronto, and is the market centre for two of Ontario's most prosperous agricultural counties, Grey and Bruce.

Owen Sound's growth has been steady rather than spectacular, thereby avoiding the familiar pitfalls of a mushroom growth. Throughout the years, its progress has been closely linked with the harbour. Excellent rail and road systems link Owen Sound with Toronto and other Ontario points. The Canadian Pacific Railway provides the city with its most important rail link with the rest of the province. The Canadian National Railway also serves the city, with a link to Stratford, and there are interswitching facilities in effect between the two railways. Provincial Highways 10 and 6 provide direct routes to Toronto and Hamilton. Highway No. 26 runs east to Barrie, providing a direct route to Northern Ontario. The Blue Water Highway travels west to the Lake Huron shore and thence south to Sarnia, Windsor and Detroit.

Owen Sound has all the advantages of a large city; it is a fully organised community owning and operating its own power, water, gas and coke systems, providing excellent and abundant service at most reasonable cost. Assessments are unusually low, and fixed assessments are customarily granted new industries.

Newspaper: The Daily Sun-Times.

Enquiries: Mr. J. G. Fraser, Industrial Commissioner.

Paris—Ontario Province—Brant District—Population (1941) 4,637—Altitude 800 feet—Area 830 acres—Rateable Value $3,000,000.

Newspaper: Star (weekly).

Principal Local Industries: Textile, woodworking, snow ploughs and graders, refrigerators, screen doors, foundry, knitting machine needles.

Agricultural Products: Cattle, dairy products, grains and root crops.

Enquiries: Board of Trade, Paris, Ontario. Publicity Committee, Town Council, Town of Paris.

Parry Sound—Ontario Province—Parry Sound District—Population (1941) 5,765—Altitude 600 feet—Area 2 square miles.

Parry Sound, with a population close on 6,000, is located on Georgian Bay, and has one of the best natural harbours on the Great Lakes.

It is served by two railroads, the Canadian National and Canadian Pacific. Both are main lines from Toronto to Vancouver. Branch line serves (C.N.R.) East from Parry Sound to Pembroke. There is daily bus service from Toronto (Grey Coach Lines) and daily trucking service.

Parry Sound has a Board of Trade and numerous service clubs, Lions, Rotarians, Legion, I.O.D.E., Masonic Lodges, Oddfellows, Rebeccas, Orange. There are churches of all denominations, Salvation Army and some other missions.

In summer a great many tourists visit the Parry Sound locality for their summer vacation. The rugged nature of the area appeals to thousands and fishing can be had both on the Georgian Bay and the inland lakes. There is a seaplane base in Parry Sound and people can be flown to all parts of the very large area comprising the Parry Sound District.

The completion of Highway No. 69 through to Sudbury will have a material effect on Parry Sound as it will be on a main road from Toronto to Sudbury.

Many excellent sites for industrial expansion can be secured in the town of Parry Sound and immediate vicinity of the town. The location of Parry Sound to the north is ideally situated for the transportation of goods. As Ontario progresses, so will Parry Sound.

Newspaper: The North Star (weekly).

Principal Local Industries: Explosives, electric motors, tourists.

Enquiries: W. L. Fisk, Secretary-Treasurer, The Parry Sound Board of Trade, Parry Sound, Ontario.

Pembroke—Ontario Province—Renfrew N.R. District—Population (1941) 11,159.

Newspapers: Bulletin; Standard-Observer.

Penetanguishene—Ontario Province—Simcoe County District—Population (1941) 4,521—Altitude 587 feet—Area 1,716 acres—Rateable Value $1,504,977, assessment for 1948, on a very conservative basis.

Penetanguishene has several sites for manufacturing plants, of whatever size and nature desired. They are owned by the town or by the Canadian National Railways, and either of these organisations is prepared to supply land at a nominal price. There is excellent bus services in any direction; provincial highway; Canadian National Railways station; harbour suitable for seaplane landings and a site available for the development of an aerodrome.

Principal Local Industries: Stoves, leather, staves, wooden boats up to 150 feet long, shoes, wooden boxes, tourists, lumber.

Quarries: Cement block and brick manufacturing; excellent sand and gravel pits.

Agricultural Products: Potatoes, apples, small fruits, mixed grains and animals.

Enquiries: Mr. M. F. Bellehumeur, Secretary, Chamber of Commerce, 100 Fox Street.

Perth—Ontario Province—Lanark District—Population (1941) 4,458.

Newspaper: Courier.

Peterborough—Ontario Province—Peterborough County—Population (1941) 25,350—Altitude 673-721 feet—Area 3,973 acres—Rateable Value $38,156,019.

Peterborough is the foremost industrial city situated between and within easiest trading distance of rich markets which surround Canada's two metropolitan areas, Montreal and Toronto. Peterborough's 85 manufacturing plants are busy and successful and their products in a recent year totalled in value $92,082,644, placing it tenth among all Canadian cities in value of industrial production.

While Peterborough is primarily a manufacturing centre, still the city is famed also for other features. It is the key city of the Kawartha Lakes, a great summer playground which annually attracts thousands of visitors.

Peterborough is on the Canadian National Railways line from Toronto through Lindsay to Belleville, the latter on the double tracked main line between Toronto and Montreal. It is also on the line from Lakefield to Port Hope, a second point on the line between Toronto and Montreal. Peterborough is likewise on one of the lines of the Canadian Pacific Railway between Toronto and Montreal and Toronto and Ottawa. Peterborough has also City and Inter-urban bus services. Peterborough is on Highways Nos. 7, 7A and 28.

The water in Peterborough is both filtered and chlorinated. There is no frontage charge for water mains. There is power for industrial and domestic consumers.

There is usually a ready supply of dependable labour, which is maintained by the surrounding rural areas. The workers are responsible and skilful. A long record of peaceful negotiations of differences without strikes exists.

As is the case in most of the older and more firmly established industrial centres of Eastern and Central Ontario a good deal of the industrial land within the limits of the city proper has been occupied by existing plants, though a number of sites, some comprising smaller acreages, remain. Detailed information covering available sites in the Peterborough locality can be obtained from the City Clerk.

Newspapers: Peterborough Examiner (daily); *Peterborough Review* (weekly).

Enquiries: Mr. E. A. Outram, City Clerk, Peterborough, Ontario.

Picton—Ontario Province—Prince Edward-Lennox District—Population (1941) 3,901.

Newspapers: Gazette; Times.

Pictou—Nova Scotia Province—Pictou District—Population (1941) 3,069.

Newspaper: Advocate.

Pointe-aux-Trembles—Quebec Province—Mercier District—Population (1941) 4,314.

Pointe Claire—Quebec Province—Montreal District—Population (1941) 4,536—Area 1,825 acres—Rateable Value $8,121,990.

Newspaper: The Lakeshore News.

Principal Local Industry: Terra cotta bricks.

Quarry: One quarry.

Portage la Prairie—Manitoba Province—Portage la Prairie District—Population (1946) 7,545—Altitude 868 feet—Area 5,691 acres—Rateable Value taxable $3,995,415; exempt $2,168,790.

Portage la Prairie, with a population of 8,000, is a flourishing city on the Assiniboine River, in one of the best agricultural districts in Canada. It is 56 miles west of the City of Winnipeg and fourteen miles directly south of Lake Manitoba.

It is served by the Canadian Pacific Railway, the Canadian National Railway and three branch railway lines. It has an aerodrome.

Portage la Prairie has grain elevators for several important companies.

There is a Chamber of Commerce with branches of both Senior and Junior bodies. For firms wishing to establish factories there are good sites, unlimited electrical power, abundant water supply and excellent railway facilities.

Newspapers: Daily Graphic; Manitoba Leader (weekly).

Principal Local Industries: Wearing apparel, brick, grain, elevators, fibre flax, workmen's gloves, awnings, machine parts, grain storage and clearing, pea and seeding storage and cleaning.

Agricultural Products: All kinds of grain, sugar beets, field peas, livestock.

Enquiries: W. H. Burns, Secretary-Treasurer, City of Portage la Prairie.

Port Alberni—British Columbia Province—Comox-Alberni District—Population (1941) 4,584.

Newspaper: West Coast Advocate.

Port Alfred—Quebec Province—Chicoutimi District—Population (1941) 3,243.

Port Arthur—Ontario Province—Thunder Bay District—Population (1941) 24,426—Altitude 602·2 feet—Area 15·63 acres—Rateable Value $32,000,000.

Port Arthur is situated on Thunder Bay, a noble expanse of water 18 miles in width and 35 miles long.

The city is built upon a series of natural terraces of the early geological period's Great Algonquin Lake. The majestic bay can be seen from almost all parts of the city and a panorama is unfolded which embraces shores, headlands and islands, rivalling in grandeur the renowned Bay of Naples and the famous fiords of Norway. Thunder Cape, "The Sleeping Giant," guardian of the bay, 17 miles offshore to the east, rises fourteen hundred feet from the water, two thousand feet above the sea; Mount McKay, six miles to the south-east, is 900 feet.

The Canadian Lakehead cities of Port Arthur and Fort William are located at the geographical centre of Canada, 800 miles north-west of Toronto, 400 miles east of Winnipeg and 375 miles north-east of Minneapolis.

Port Arthur has cheap and abundant industrial power and the lowest domestic power rate on the continent. There is an inexhaustible supply of pure soft water, desirable factory sites and harmonious labour relations. It is the largest Pulp and Paper producing area in Canada and the Lakehead grain elevator has a capacity of 94,000,000 bushels.

Port Arthur has an average summer temperature of 60 degrees, a moderate winter climate and a low death rate. Port Arthur is immune from hayfever. It has modern hospitals.

Newspaper: The News-Chronicle.

Principal Local Industries: Ship building, newsprint, paper, harness, wood preserving, brewery, malting, lumber and lumber products, tourists.

Mines: Iron and gold.

Agricultural Products: Milk, cheese and cattle.

Enquiries: Mr. L. J. Stiver, Manager, Chamber of Commerce, 707, Public Utilities Building, Port Arthur, Ontario.

Port Colborne—Ontario Province—Welland County District—Population (1941) 6,993—Altitude 535 feet—Area 1,203 acres—Rateable Value $7,616,195.

Newspaper: Welland-Port Colborne Tribune.

Principal Local Industries: Metals, milling, furnaces, flour, cement, shoes, marine equipment.

Quarries: Crushed Stone.

Enquiries: D. M. Peart, Secretary, Industrial Committee, Port Colborne.

Port Hope—Ontario Province—Durham County District—Population (1941) 5,055—Altitude 268 feet—Area 12 acres—Rateable Value $2,888,909.

Port Hope, population 5,900, chiefly Anglo-Saxon, is on Lake Ontario, 62 miles east of Toronto, on No. 2 Highway. It is served by the Canadian National and the Canadian Pacific Railways. There is a good harbour, 16 feet depth, and abundant water supply from Lake Ontario. Port Hope has Hydro-electric power, and there are available industrial sites adjoining the Canadian National Railways and within the town limits.

Newspapers: Port Hope Evening Guide; Port Hope Weekly Guide.

Principal Local Industries: Air Compressors, chemicals, files, bath tubs and fixtures, gravity and mechanical conveyors, chemical fertilisers, radium refinery, shoes, tanners, babbitt metals, knitting mill, canning factory, leather laces, harness manufacturing, monument manufacturers, nitro-cellulose lacquers.

Enquiries: Port Hope Board of Trade, 33, Walton Street, Port Hope, Ontario.

Prescott—Ontario Province—Grenville County District—Population (1941) 3,223—Altitude 300 feet—Area 640 acres—Rateable Value: tax rate 52 mills on $.

Newspaper: Prescott Journal (weekly).

Principal Local Industries: Glove works, containers, silk mills, knitting mills, brass manufacture, machines and welding, concrete burial vaults, etc.

Agricultural Products: Co-operative creameries.

Preston—Ontario Province—Waterloo S.R. District—Population (1941) 6,704.

Newspaper: Prestonian.

Prince Albert—Saskatchewan Province—Population (1946) 14,290—Altitude 1,400 feet—Area 10,558·8 acres—Rateable Value $8,812,685.

Prince Albert has an approximate population of 16,000, and is showing a steady growth. In the Prairie part of the Province, where the land was more easily broken, development was faster than in this area where either Park land or Timber land had to be cleared. Prince Albert to-day is the cross roads for a highly productive diversified farming area of well over 30,000 occupied farms.

Ten lines on Canadian National and Canadian Pacific Railway lines, and 9 bus routes radiate out of the city to serve this vast area. Prince Albert as the most northerly city, has a natural interest in the development of the country north of here. Lumbering is carried on, furs are brought in in great numbers, and a very considerable development in the fishing industry in northern lakes has taken place. Along the northern boundary of the wooded area there is 90,000 square miles of pre-Cambrian formation. The metal area while not very close to Prince Albert was valued at over $20,000,000 in 1947, with a greater part of the vast mineral area yet to be prospected.

Some 40 miles east of Prince Albert, the south Saskatchewan River flows into the north Saskatchewan River, the latter passes through the city. A few miles further on at Fort à La Corne is a potential power site, which has been thoroughly investigated and found physically and economically feasible for the development of 125,000 horse power according to reports submitted to the Saskatchewan Government some time ago.

The Prince Albert National Park, one of the finest in the west, is situated just 35 miles north of the city. This park is gaining in popularity and is drawing larger crowds each year.

In regard to air transportation the Canadian Pacific Airlines, Ltd., operate out of here. The Saskatchewan Government Airways now have 17 aircraft operating out of Prince Albert, into the north country.

There are no Co-operative silos operating in the district at the present time.

Irrigation can be obtained from the north Saskatchewan River for industries.

There is a good opening here for all kinds of wood working industries, oil refinery, etc.

Newspaper: Prince Albert Daily Herald.

Principal Local Industries: Meat packing plant, (2) wood preserver plants, (3) mineral water companies, box factory, brewery, (4) creameries, cold storage, foundry, sash and door manufacturers, sheet metal, builders' supplies, radio station, cindercrete blocks, cement blocks, etc.

Agricultural Products: Wheat, oats, barley, rye flax. Farmers also growing to good advantage, alfalfa seed, rape seed, field peas, brome grass, alfalfa hay, etc.

Enquiries: Prince Albert Board of Trade.

Prince Rupert—British Columbia Province—Skeena District—Population (1941) 6,714—Altitude sea level—Area 4,761 acres—Rateable Value $12,330,960.

Prince Rupert is the western terminus of the northern main line of the Canadian National Railways and is served by regular coastwise steamships of Canadian National Steamships, Canadian Pacific Steamships and Union Steamships, as well as non-schedule freighters. Canadian Pacific Airlines operate a daily air service in and out, using amphibians as Prince Rupert has a seaplane base but no landing field. Prince Rupert has a Chamber of Commerce, Junior Chamber of Commerce, Public Relations Council, as well as the usual service clubs and lodges. It has a frozen fish storage capacity of twenty-three million pounds, a grain elevator with one and one-quarter million bushels capacity and over 4,000 feet of wharfage. Prince Rupert is the third best harbour in the world, ice-free the year round. It is the terminus of northern Trans-Provincial Highway (now open) giving highway access to highway systems of the whole continent.

Newspaper: The Daily News.

Principal Local Industries: Acetose cellulose pulp (for "Celanese" products), halibut liver oil products, dogfish liver oil products, cod liver oil products, fishing, canning, fish meal and fertiliser, lumber, wooden boxes, shingles, poles and piling.

Enquiries: Prince Rupert Public Relations Council, P.O. Box 958, Prince Rupert B.C.

Quebec—Quebec Province—Quebec District—Population (1941) 150,757 (Greater Quebec 200,814)—Altitude lowest 19 feet; highest 375 feet; average 192 feet—Area 5,755 acres—Rateable Value $208,886,403.

Quebec, with a population of 194,639, is served by the Canadian National, Canadian Pacific, Quebec Central and Quebec Railways, as well as by the Canada Steamship Lines, the Clarke Steamship Co., the Canadian Pacific Steamship, the Cunard-White Star Line, and the Holland-America Line. The airport is 7 miles from Quebec and is served by the Canadian Pacific Airlines and the Quebec Airways, Ltd.

Quebec has grain elevators (National Harbour Board's) and a Board of Trade.

There are facilities for the establishment of new factories and the Industrial Commission will furnish information.

Newspapers: 4 dailies—*L'Èvenement Journal* (morning French); *Le Soleil* (French); *L'Action Catholique* (French); *Chronicle Telegraph* (English).

Principal Local Industries: Shoes, corsets, tobacco, furniture, steelwares, farm equipment, fertilisers, small arms ammunition, textile, leather, electrical supplies, confectionery, handicrafts, shipbuilding, pulp and paper mills, lumber, pulpwood, plywood, furs, breweries, slaughter houses, brickworks.

Enquiries: Quebec Municipal Tourist Bureau, Place d'Armes, Quebec. Industrial and commercial enquiries should be directed to: Industrial Commission, City Hall, Quebec.

Quebec West—Quebec Province—Quebec District—Population (1941) 3,619.

Newspapers : L'Action Catholique; Chronicle-Telegraph; Le Soleil.

Red Deer—Alberta Province—Red Deer District—Population (1946) 3,955.

Newspaper: Advocate (weekly).

Regina—Saskatchewan Province—Population (1946) 58,152—Altitude 1,825 feet—Area 8,404 acres—Rateable Value $43,120,715.

Newspaper: The Leader-Post.

Principal Local Industries: Chief among these are: bakery products, beverages, brooms, building stone, bushings, carriage bodies, chemicals, cinder blocks, concrete pipes, confectionery, creamery products, engravings, envelopes, fertilisers, flour and feeds, gases, glass, jewelry, leather, machinery, millwood products, monuments, moving pictures, neon signs, packinghouse products, paints, and varnishes, petroleum products, printing, publishing and bookbinding, stamps and seals, sheet metal products, shoes, springs, tents and awnings, truck and storage tanks, wood and paper boxes.

Enquiries: Mr. A. Aitken, Commissioner, Regina Chamber of Commerce, Co-op. Building, Regina, Saskatchewan.

Renfrew—Ontario Province—Renfrew County District—Population (1941) 5,511—Altitude 800 feet—Area 2,416·5 acres—Rateable Value $5,005,000.

Renfrew has a population of 6,300, and is situated 60 miles from the Capital city of Ottawa on the main line of the Canadian Pacific Railway from Montreal to Vancouver. There are also connections by Canadian Pacific Railway direct with the city of Kingston. There is a branch line from the city of Ottawa (Canadian National Railway), which connects at Pembroke with the main line on the Canadian National Railway to the west coast. There is excellent train service and bus service east and west.

There is in Renfrew an active Chamber of Commerce to which all enquiries may be addressed. The nearest aerodrome to Renfrew is fifteen miles away.

Labour troubles are unknown in Renfrew and there is ample labour and a good section to draw from, from the farming community surrounding the town. The area immediately around the town of Renfrew is as good a farming section as any in Ontario.

Renfrew has a splendid nine hole golf course and within an area of 25 miles around Renfrew, there is splendid trout, bass, pike and pickerel fishing and excellent deer hunting. The town of Renfrew is on Highway 17, one of the Ontario Provincial Highways from Ottawa to North Bay.

Newspapers: Mercury.

Principal Local Industries: Cream separators, farm ranges, scales, ladies dress goods, woollens, refrigerators and household electrical equipment, moulding, magnesium casting, bottling works, woodworks, saw-mill and hardwood products.

Mines or Quarries: Magnesium, calacium, limestone.

Agricultural Products: Two flour mills, co-operative creameries, dairies, co-operative poultry.

Enquiries: Secretary, Board of Trade.

Richmond—Quebec Province—Richmond-Wolfe District—Population (1941) 3,082.

Rimouski—Quebec Province—Rimouski District—Population (1941) 7,009—Altitude 100 feet (average)—Area 1,926·8 acres—Rateable Value $4,918,721.

Rimouski, on the south bank of the St. Lawrence, 180 miles south of Quebec, has a population of 10,000 inhabitants. Rimouski is in some ways the capital of Lower St. Lawrence. Rimouski owes its prosperity to the lumber industry.

Rimouski has a fine up-to-date sea-port. Ships from Newfoundland, the North Coast and Gaspé unload here goods which are then transported to their destination by the Canadian National Railway (Montreal-Halifax line). Rimouski is also served by an excellent highway and several bus services connect it with Ste-Anne-des-Monts, Lac-des-Aigles and Rivière-du-Loup. River and air transport connect it with Comeau Bay and Sept-Iles.

Rimouski has several churches and schools, 12 hotels, three cinemas, a golf links and a racecourse.

Rimouski has ample supplies of electricity, water, sewerage and skilled factory labour. In a word, Rimouski is a locality which will be much sought and has attractive prospects.

Newspapers: Two—*Le Progrès du Golfe* (weekly); *L'Echo du bas S-Laurent* (weekly).

Principal Local Industries: Three sawmills, one box factory, four factories for doors and sashes, one cod liver oil production plant (1,000,000 gallons capacity), two tombstone works.

Agricultural Products: General farm produce.

Enquiries: Leopold Garm, City Manager, Rimouski, Quebec.

Riverside—Ontario Province—Essex County District—Population (1941) 4,878—Area 2,600 acres.

The town of Riverside is practically all residential, and has fair locations for light manufacturing industries.

Principal Local Industries: Small tools for home workshops, lathes, auto slipcovers, gasoline stations and car repairs, roofing materials, roadhouse hotels.

Agricultural Products: Garden and farm produce, hybrid seed corn.

Enquiries: Town Hall, Lauzon Road, Riverside, Ontario.

Rivière-du-Loup—Quebec Province—Témiscouata District—Population (1941) 8,713—Altitude 200 feet—Area 4,900 acres—Rateable Value Taxable: $3,838,780; Non-taxable: $5,018,967.

Rivière-du-Loup, with a population of 9,000 inhabitants, is situated at the junction of the river of the same name and the St. Lawrence, 120 miles from Quebec.

Due to her geographical position, Rivière-du-Loup is well located for trade, industry and tourism. Fine roads connect Rivière-du-Loup with other towns of the province, with New Brunswick, and the United States only 80 miles distant.

Rivière-du-Loup is served by the Canadian National and the Temiscouata Railways.

There is a deep water port at Rivière-du-Loup and Arvida, the principal centre for aluminium, only 50 miles by water.

An airport is being built and Trans-Canada Air Lines will soon connect Rivière-du-Loup with the most important North American towns.

The population, though French-Canadian, is partly bi-lingual and has maintained its traditional love of work. Strikes are unkown in this city and labour is plentiful.

In order to encourage the expansion of Rivière-du-Loup, special rates for power are offered to new establishments. In the proximity of the town are sites which are to be had at advantageous prices.

Newspaper: Le Saint-Laurent.

Principal Local Industries: Car-shops, pulp-mill, furniture, jewelry, clock and watches, shirts, bottling shops, concrete blocks, saw-mills and lumber products.

Agricultural Products: Dairies, orchards, co-operatives.

Enquiries: Secretary of the Chamber of Commerce; or to City Manager, City Hall.

Roberval—Quebec Province—Lake St. John-Roberval District—Population (1941) 3,220.

Newspaper: Colon (French).

Rossland—British Columbia Province—Kootenay W. District—Population (1941) 3,657.

Newspaper: Miner.

Rouyn—Quebec Province—Pontiac District—Population (1941) 8,808.

Newspapers: La Frontière; Rouyn-Noranda Press.

Ste. Agathe-des-Monts—Quebec Province—Terrebonne District—Population (1941) 3,308—Altitude 1,500 feet—Rateable Value $3,000,000.

Newspaper: L'Echo des Laurentides.

Principal Local Industries: Wood, doors, sashes, tourism, pottery.

Enquiries: Secretary-Treasurer of the town, Ste. Agathe-des-Monts, Province of Quebec.

Ste. Anne de Bellevue—Quebec Province—Jacques-Cartier District—Population (1941) 3,006.

St. Boniface—Manitoba Province—St. Boniface District—Population (1946) 21,320—Altitude 753 feet—Area 11,641 acres—Rateable Value $14,834,630.

Newspaper: The Norwood Press (weekly).

Principal Local Industries: Sheet metal and building products, Dominion wheel foundries, packing plants and livestock (second largest stockyards in the world), gas and oil companies, monumental works, building and lumber contractors, soap manufacturers, breweries, bricks, tar, wire goods, paints, furniture, box factories, macaroni plant, electrical supplies.

Agricultural Products: Flour mills, dairy farms and creameries, mushroom growing, grain elevators, breakfast foods.

Enquiries: Mr. Maurice Prud'homme, City Clerk, City Hall, St. Boniface.

St. Catharines—Ontario Province—Niagara District—Population (1941) 30,275—Altitude 347 feet—Area 3,670 acres—Rateable Value $34,177,663.

St. Catharines, population 35,446, is the capital of Lincoln County. The New Welland Ship Canal passes the eastern limits of the city which is 35 miles from Toronto by steamer from Port Dalhousie and 3 miles from St. Catharines (summer only). There is electric railway service between Port Colbourne, on Lake Erie, Welland, Thorold, Merritton, Niagara Falls, and Port Dalhousie. St. Catharines is situated on main line of Canadian National Railway with freight service over electric railroad connecting either Canadian National Railway or Canadian Pacific Railway. There are Airport facilities. There is adequate inter-city motor lorry transport and inter-city bus connection. Class A roads connect all important centres in Canada and United States. St. Catharines is the centre of the Niagara fruit belt.

Newspaper: The St. Catharine Standard (daily).

Principal Local Industries: Metal plants, including agricultural implements, axes, carriage and harness hardware, lumbering tools, motors, dynamos, transformers, locks, drop forgings, broadsilk and silk lingerie of all kinds, braidings, silk dyeing and finishing plant, hair cloth, knitted woollen goods, rugs, etc.

Agricultural Products: Fruits, peaches, apples, pears, plums, berries.

Enquiries: L. G. Masson, Managing-Secretary, St. Catharines Chamber of Commerce, St. Catharines, Ontario.

St. Hyacinthe—Quebec Province—St. Hyacinthe District—Population (1941) 17,798—Altitude 109 feet—Area 1,170 acres—Rateable Value $20,643,770.

C.N.R. and C.P.R.; 2 chambers of commerce; 5 banks.

Newspapers: Le Clairon; Le Courier de St. Hyacinthe.

Principal Local Industries: Textiles (wool, cotton and silk), corsets, cosmetics, hosiery, pipe organs, boot and shoe, tanneries, foundries, agricultural machineries.

Enquiries: Chamber of Commerce; *or* Ls. Crepeau I.C., City Hall.

St. Jean (**St. John's**)—Quebec Province—St. Jean District—Population (1941) 13,646—Area 25 square miles.

Newspapers: Le Canada-Français (French); *Le Richelieu* (French); *The News* (English).

Principal Local Industries: Sewing machines, rubber and plastic products, ceramic and clay products, matches, silk hosiery, electric batteries, textiles and textile dyeing, cables and conduits, stationery paper and paper articles.

Agricultural Products: Dairy milk and milk products, vegetables, horticulture.

Enquiries: Jean Frédérick, Secretary, St. John's Board of Trade, St. John's, Quebec, Canada.

St. Jerome—Quebec Province—Terrebonne District—Population (1941) 11,329.

Newspapers: Avenir du Nord; Echo du Nord (French).

St. John—New Brunswick Province—St. John-Albert District—Population (1941) 51,741—Altitude at the Union Station 21·4 feet—Area 9,152 acres—Rateable Value $53,132,640.

St. John, New Brunswick, is situated on the northern shore of the Bay of Fundy and stands upon a high peninsula, the harbour and the river being in the centre of the city and Courtenay Bay on the east side.

Located at the mouth of the St. John River it is approximately 80 miles from the International Border and about 400 miles from Boston, the metropolis of Massachusetts and New England. Montreal and its great Canadian market is 485·7 miles by railway and the markets of the world are served from the all-year-round ocean port of St. John.

St. John has for many years been the leading manufacturing centre of the Maritime Provinces and the advantages and opportunities it offers industrialists are extraordinary.

St. John has a climate unexcelled in Canada. Moderated by the Bay of Fundy it is without the extremes of heat and cold generally found throughout the Dominion.

One of the wonders of the world is the remarkable Reversing Falls Rapids at the mouth of the St. John River at St. John.

St. John is served by the Canadian National Railways and the Canadian Pacific Railway. There are bus services between St. John and outside points. St. John has a small airport, a larger one is being made.

The Canadian Pacific Steamship Company has a daily (except Sunday) ferry service between St. John and Digby, Nova Scotia, carrying passengers and freight. The Marine Transport Company operate two ships on a weekly freight service from St. John to the north and south ends of the Bay of Fundy besides steamer service to Grand Manan Island twice weekly out of St. John which is a very popular tourist trip.

St. John has the oldest incorporated Board of Trade in the Dominion of Canada. The city is also served by the St. John Junior Chamber of Commerce.

Newspapers: Telegraph-Journal (daily); *Evening Times; Globe.*

Principal Local Industries: Foundry, lumbering, boat building, textiles, shipping, sugar refining, pulp, commercial fishing.

Mines or Quarries: Soft coal, limestone, gypsum, salt.

Agricultural Product: Potatoes.

Enquiries: J. R. Dudley, Industrial Commissioner, Board of Trade Building, St. John, New Brunswick. (Miss) Mary D. Lewis, Secretary-Treasurer, St. John Board of Trade, St. John, New Brunswick.

St. Joseph d'Alma—Quebec Province—Lake St. John-Robervale District—Population (1941) 6,449.

Newspaper: Le Lac St. Jean.

St. Joseph de Grantham—Quebec Province—Population (1941) 5,556.

St. Lambert—Quebec Province—Chambly-Rouville District—Population (1941) 6,417.

St. Laurent—Quebec Province—Montreal District—Population (1941) 6,242—Altitude about 165 feet—Area 1,118 acres—Rateable Value $15,000,000.

Canadian National Railway crosses the town at two points. Airport facilities about three miles from town. Labour available. Adjoining the city of Montreal. Two highways crossing the town.

Newspaper: Le Voyageur.

Principal Local Industries: Glass, stove, cans, smallware, pharmaceutical products, lumber, tiles, perfumery, ceramic.

Agricultural Products: Fruit packing, preserves.

St. Marys—Ontario Province—Perth District—Population (1941) 3,635.

Newspaper: Journal-Argus.

St. Pierre—Quebec Province—Joliette-d'Assomption District—Population (1941) 4,061.

St. Stephen—New Brunswick Province—Charlotte County District—Population (1941) 3,306.

Newspaper: Saint Croix Courier.

St. Stephen, the third largest port of entry on the International Boundary line, is the principal gateway to New Brunswick and the Maritimes.

From an industrial standpoint St. Stephen is one of the most prosperous towns in New Brunswick.

Prominent bus lines and the Canadian Pacific Railway connect all parts of the Province.

Newspaper: Saint Croix Courier.

Principal Local Industries: St. Stephen woollen mills, St. Croix Valley woollen mill.

Ste. Thérèse—Quebec Province—Terrebonne District—Population (1941) 4,659—Rateable Value $2,500,000 taxable.

Newspapers: Voix des Mille Iles; Progrès de Terrebonne.

Principal Local Industries: Doors, furniture, plywood, clothing.

St. Thomas—Ontario Province—Elgin District—Population (1941) 17,132.

Newspapers: Municipal World; Times Journal.

Sarnia—Ontario Province—County Lambton District—Population (1941) 18,734—Altitude 611 feet.

Sarnia is located at the southern end of Lake Huron at the head of the St. Clair River and opposite the city of Port Huron, Michigan, to which it is connected by the Canadian National Railways' tunnel and a highway bridge.

The present industrial production of Sarnia, with that in immediate prospect from operations now being established, indicates a well diversified plant output.

Sarnia is on the Canadian National Railways double-tracked main line from Montreal to Chicago. It is also the terminus of a branch line of the Chesapeake and Ohio Railroad's main line from Chicago to Detroit and Buffalo. There is a freight interchange between the Canadian National and the Chesapeake and Ohio at Sarnia. The latter road connects with the Canadian Pacific Railway at Chatham, 53 miles distant. There is a ferry service between Sarnia and Port Huron during the navigable season. Boats leave both points every twenty minutes carrying foot passengers only.

During the season of navigation from April 15th to December 15th, on the Great Lakes, Sarnia is a port of call for ships of the Canadian Steamship Lines.

Sarnia is on Highway No. 7 to Stratford, Kitchener, Guelph and Peterborough, and on Highway No. 40 to Chatham.

There are city and inter-urban bus services. The nearest airports are at London and Windsor.

There are ample supplies of water, power and natural gas.

The industries of Sarnia are well diversified, and this has attracted to the community most recognised types of skilled and semi-skilled labour, together with a normal complement of common labour. There are no susbtantial industrial sites available at the present time within the corporate limits of the city of Sarnia. However, there is considerable acreage capable of industrial development adjacent to the city. Detailed information covering available sites in the Sarnia locality can be obtained from the Secretary-Manager, Chamber of Commerce, Sarnia.

Newspaper: Sarnia Canadian Observer.

Enquiries: Secretary-Manager, Sarnia Chamber of Commerce, Sarnia, Ontario.

Saskatoon—Saskatchewan Province—Saskatoon District—Population (1946) 44,829—Altitude 1,596 feet—Area 8,000 acres—Rateable Value $34,742,176.

The city of Saskatoon was founded in the year 1882. It is situated on the banks of the South Saskatchewan River, about midway between Winnipeg and Edmonton. The city saw rapid growth from the years 1906-1908 and again from 1921 to 1929 and again from 1945 to 1948.

The population of the city is 50,000. It is in excellent financial shape. The city is served by both the Canadian National Railway and the Canadian Pacific Railway. The main transcontinental line of the Canadian National Railway runs through Saskatoon. The city is served by both Trans-Canada Air Lines and by Canadian Pacific Airlines. It is on the main line of the T.C.A. from the east to the west. The C.P.A. operates a service north and south in the province.

Saskatoon has a very active Board of Trade. It is also the centre of a number of co-operative institutions.

The city has a zoning by-law which divides the city into heavy industry, and industrial and residential. The city has very fine industrial sites on trackage which are available at nominal prices.

Newspapers: Saskatoon Star-Phoenix (twice daily); *Western Producer* (weekly).

Principal Local Industries: Meat packing, dairy products, milling of flour and cereals, vegetable oil, road machinery, iron products, egg powdering, oil refining, concrete products, cinder brick, chick hatching, railway yards, construction.

Agricultural Products: Butter, cheese, pasteurised milk.

Enquiries: S. N. MacEachern, Commissioner, Saskatoon Board of Trade.

Sault Ste. Marie—Ontario Province—Algoma District—Population (1941) 25,794—Altitude 602 feet—Area 49,000 acres—Rateable Value $27,276,604 assessed value of taxable property.

Sault Ste. Marie is situated on the St. Mary's River connecting Lake Huron and Lake Superior, at the centre of the world's greatest waterway systems. Through the locks here more freight tonnage passes each year than through the Suez and Panama Canals combined. Several water-borne passenger lines use this city as a supply base for upper and lower lake traffic. Modern coal and commercial docks are in operation. Canadian and United States canals are available without charge to vessels of both nations.

The Sault Ste. Marie district is served by the Canadian Pacific Railway, with continent-wide connections; the Algoma Central and Hudson Bay Railway, running directly north through virgin forest to connect with both the Canadian Pacific and Canadian National Railways; and by two railroads on the United States side of the International Boundary. An international railway bridge connects the cities of Sault Ste. Marie, Ontario, and Sault Ste. Marie, Michigan. Fast freight service to all points ensures speedy deliveries.

Sault Ste. Marie, is linked to lower Ontario by King's Highway No. 17, which also extends 80 miles north of the city along the scenic shore of Lake Superior to Montreal River. Five United States Highways terminate at Sault Ste. Marie, Michigan. Fast ferry service is provided across the St. Mary's River.

Trans-Canada and Capital-PCA Airlines, operating out of Kinross, Mich., 24 miles from the Sault, link with the major air routes of the continent. Two charter, non-schedule air services, here provide transportation to the more remote parts of the vacation area.

Sault Ste. Marie has a Chamber of Commerce and its facilities are offered for assistance in establishing local industries.

Newspaper: Sault Daily Star.

Principal Local Industries: Steel, pulp and paper, chromium, veneer and plywood, lumber.

Mines: Helen mine, north of city at Michipecoten Harbour, Ontario.

Agricultural Products: Few dairy products.

Enquiries: Wilfrid J. Hussey, Secretary-Manager, Sault Ste. Marie Chamber of Commerce, Sault Ste. Marie, Ontario.

Selkirk—Manitoba Province—Selkirk District—Population (1946) 5,370.

Newspapers: Journal; Record.

Shawinigan Falls—Quebec Province—St. Maurice District—Population (1941) 20,325—Altitude maximum 423 feet; minimum 256 feet—Area 1,610 acres.

Shawinigan Falls (Greater) has a population of 35,000. It is situated 97 miles from Montreal, 89 miles from Quebec and 19 miles north from Trois-Rivières. Shawinigan Falls, owes its existence to electricity and has experienced phenomenal growth since the Falls were harnessed in the closing year of the Nineteenth century. Shawinigan has now become one of the greatest hydro-electric centres in Canada, with power the magnet which has drawn numerous important industries to the region. The remarkable postwar industrial expansion of Shawinigan Falls can be expected to continue, as coal shortages, off-standard frequencies, labour difficulties, and threatened rationing of power, which plague other parts of the continent, do not affect the economy of the oldest province of Canada.

Unlike most cities enjoying such rapid development, Shawinigan Falls has not been allowed to spread out promiscuously or unharmoniously in all directions. All industries have co-operated in spending wisely large sums of money to make it harmonise in beauty with the national splendour of its surroundings. There is a Senior and a Junior Chamber of Commerce, many schools and several famous clubs. Within easy reach of the city there is a vast hunting and fishing territory.

Newspapers: Five weeklies.

Principal Local Industries: Products manufactured: electricity, calcium carbide, acetylene, carbon black, acetic acid, acetone butyl alcohol, castings, sulphite, electrical conductors, wire, rod and bar, aluminium ingot, cable, abrasive products, silicon carbide, hydrogen peroxide, caustic soda, cellophane, chlorine, trichlorethylene, perchlorathylene, plastic, vinylite, wood for construction, newsprint, cotton yarns, stainless steel.

Quarries: Stone.

Agricultural Products: Plenty in the district.

Enquiries: Robert Dorion, City Manager, City Hall.

Sherbrooke—Quebec Province—Population (1941) 35,965—Altitude 540 feet—Area 6,080 acres.

Sherbrooke, with a population of 46,000, is served by the Quebec Central Railway (Quebec city to Newport, Vt.), the Canadian National (main line to Portland, Me., Atlantic seaport), and the Canadian Pacific (main line to St. John, New Brunswick seaport). There is an aerodrome at Windsor Mills, 13 miles north of Sherbrooke. There are hard surface highways in all directions, connecting with all large cities of the province and the United States.

Free land and other concessions are offered by the Municipal Council as inducements to manufacturers.

Newspapers: La Tribune (French); *Sherbrooke Record* (English); *Sherbrooke Telegram* (English) (weekly); *Le Messager* (French) (weekly).

Quarries: City crushed stone quarry.

Agricultural Products: Butter, cheese, cream, eggs (raw and powdered), poultry, meat packing.

Enquiries: Ant. Deslauriers, City Clerk, City Hall, Sherbrooke, Province of Quebec.

Simcoe—Ontario Province—Norfolk County District—Population (1941) 6,037—Altitude 600 to 700 feet—Area 876·6 acres—Rateable Value $5,563,941.

Newspaper: The Simcoe Reformer.

Principal Local Industries: Textiles, mitts and gloves, knitted goods, overalls and work shirts, manufacture of cans, stokers, tanks, soda water, machine shops, preserving of jams, jellies, pickles, etc., bread and pastries.

Agricultural Products: Dairy products, cheese and ice cream.

Enquiries: Mr. Harold I. Pond, Secretary, Simcoe Board of Trade, 55, Colborne Street South, Simcoe, Ontario.

Smiths Falls—Ontario Province—Rideau Lakes District—Population (1941) 7,159—Altitude 625 feet—Area 1,030 acres—Rateable Value $4,797,143.

Smiths Falls is located on the Rideau River and Canal, and on Highways Nos. 15 and 29.

It is a divisional point on the Canadian Pacific Railway and on the Canadian National Railway and is served by three transportation companies and two bus lines.

Smiths Falls, a market centre, in a rich farming district, is a summer resort area for the beautiful Rideau Lakes.

The trading area radius extends 12 miles north, six east, 12 south and six west. The population of Smiths Falls plus the surrounding trading area is 13,000.

The town of Smiths Falls through the Chamber of Commerce offers ideal factory locations, favourable taxation agreements and arrangements, abundant low rate electric power 60 cycle, abundance of treated or non-treated water and a steady supply of suitable labour.

Smiths Falls is the first planned town in the Province of Ontario.

Newspaper: Record-News (weekly).

Principal Local Industries: Agricultural implements, malleable castings, steel office equipment, electrical appliances, lingerie, gloves, sports wear, aprons and infants' wear, precision instruments, yarns, poultry equipment and supplies.

Agricultural Products: Poultry and dairy products, hay, grain and silage.

Enquiries: (Miss) Phyllis Hutton, Secretary, Chamber of Commerce, Smiths Falls, Ontario.

Sorel—Quebec Province—Richelieu District—Population (1941) 12,251—Altitude 40 feet—Area 1,920 acres—Rateable Value $7,440,200.

Sorel is situated on the east bank of the Richelieu River, at the point where the river, which separates it from St. Joseph de Sorel and the estuary which forms part of its harbour, enters the St. Lawrence. The community inclusive of the adjacent town of St. Joseph de Sorel has a population of about 20,000. It is 48 miles east of Montreal, 123 miles west of Quebec city and about 77 miles north of the United States boundary.

The railroad serving Sorel is the Canadian National Railway; main lines: Montreal-St. Gregoire; Branch lines: Bellevue Jct.-St. Hyacinthe. There are four passenger trains daily; four freight trains daily and bus lines serving the town.

There is a Junior Chamber of Commerce in Sorel.

Inside the city there are few factory sites available, but there are many on the outskirts.

Newspapers: Three: *Le Sorelois; Le Courrier de Sorel; Le Progrès du Richelieu.*

Principal Local Industries: Silk, stockings, lumber and millworks, clothing, creosoting, shirts, shipbuilding, steel casting, machining, manganese steel castings.

Springhill—Nova Scotia Province—Cumberland District—Population (1941) 7,170.

Newspaper: Record.

Stellarton—Nova Scotia Province—Pictou County District—Population (1941) 5,351—Area 5 square miles—Rateable Value $2,778,175.

Stellarton offers much of value to industries wishing to establish here. Ideal locations are available with low cost coal and power, probably as low as anywhere in Canada.

Principal Local Industries: Dairy and cold storage, lumber, junction, round house and car shops, C. N. Rys.

Mines: Coal mines.

Agricultural Products: All surrounding districts farm land.

Enquiries: Town of Stellarton.

Stratford—Ontario Province—Perth District—Population (1941) 17,038—Altitude 1,194 feet—Area 2,835 acres.

Stratford is located in the geographical centre of what is sometimes known as the peninsula of western Ontario which is surrounded, except on the east, by the Georgian Bay, Lake Huron, Lake Erie and Lake Ontario. To the east the peninsula is generally assumed to include the city of Toronto.

In the peninsula is produced 40 per cent. of the gross value of the manufactured products of Canada.

Stratford is a railway centre with lines radiating in six directions and is well served by highways.

The city is known as the Classic City and has to some extent copied Stratford-on-Avon in England. It has its Avon River and the finest park in Ontario. Its wards and streets have many Shakesperian names.

Its educational, social and sporting facilities are outstanding. Stratford is said to be one of the best places in the world in which to live. There are no slums and blighted areas.

In spite of the desire to maintain Stratford as a city of homes, aggressive planning is given to the city's industrial development. Anyone desiring to locate an industry in this city is offered the utmost co-operation on sites with reduced taxation, building preparations, etc.

There have been no industrial disputes creating strikes, etc., in this city in the past 15 years.

Newspaper: (Stratford) *Beacon-Herald.*

Principal Local Industries: Canadian National Railway locomotive repair. Hard and upholstered furniture, rubber, meat packing, brass goods, upholsterers' cloth, knitted goods, iron castings, pulleys, office furniture, castors, mirrors, radio cabinets, grain grinders, plastic, water closet seats, sheet metal products, machined steel parts.

Agricultural Products: Processed products only.

Enquiries: Secretary, Stratford Industrial Commission.

Strathroy—Ontario Province—Middlesex County District—Population (1941) 3,016—Altitude 760 feet—Rateable Value $2,340,830.

Newspaper: Strathroy Age-Despatch.

Principal Local Industries: Furniture, woollen mills, flour mills, canning.

Agricultural Products: Hard and soft wheat flour, butter, tobacco, potatoes, apples, celery.

Enquiries: Miss Phyllis Mitchell, Secretary, Chamber of Commerce, Strathroy, Ontario.

Sturgeon Falls—Ontario Province—Nipissing District—Population (1941) 4,576.

Sudbury—Ontario Province—Sudbury District—Population (1941) 32,203—Altitude 640 feet—Area 2,713 acres—Rateable Value $22,646,959.

Sudbury is served by the trans-continental lines of both Canadian Pacific Railway and Canadian National Railway, which offer overnight service to Ottawa, Toronto and Sault Ste. Marie (Port on Great Lakes). The Greyhound Bus Lines operate through Sudbury with a terminal for northern Ontario in the city with connections to all parts of Canada and the United States. There are three chartered (privately owned) airlines operating out of here to all points (water base). There is a well established and active Chamber of Commerce in the city. Land sites for industrial building are plentiful and there is also a number of already constructed buildings available for industries and factories. The inhabitants of Sudbury are anxious to secure several light industries for the city and district for purposes of diversification from the huge mining industry and to absorb the surplus of experienced female help.

Newspaper: Sudbury Daily Star.

Principal Local Industries: Mining and lumbering, constructional machinery, ornamental iron works, woodwork and handicrafts.

Mines: International Nickel Mines of Canada, Ltd., and Falconbridge Nickel Mines, Ltd.

Agricultural Products: Potatoes, grains and dairy products.

Enquiries: H. W. Nelson, Secretary-Manager, Chamber of Commerce, Box 368, Sudbury.

Summerside—Prince Edward Island Province—Prince County—Population (1941) 5,034.

Newspapers: P.E.I. Agriculturist; Island Farmer; Journal; Pioneer.

Sussex—New Brunswick Province—King's District—Population (1941) 3,027—Area about 2,000 acres—Rateable Value $1,600,000.

The town of Sussex is situated on the Kennebecasis River, in a rich agricultural district. It is about half way between the city of St. John and the city of Moncton, on a good paved highway, and about an hour's automobile ride to either city.

Sussex has especially good hunting and fishing within a short distance.

Newspaper: King's County Record.

Principal Local Industries: Lumber, creamery, butter, ice cream, soft drinks.

Agricultural Products: All kinds.

Swift Current—Saskatchewan Province—Swift Current District—Population (1946) 6,257—Altitude 2,435 feet—Rateable Value $4,200,000.

Newspaper: The Swift Current Sun.

Principal Local Industries: Ranching, grain farming, horse meat processing plant, livestock farming, two creameries, flour mill, egg hatcheries.

Agricultural Products: All types.

Enquiries: Swift Current Board of Trade.

Sydney—Nova Scotia Province—Cape Breton District—Population (1941) 28,305.

Newspaper: Herald.

Sydney Mines—Nova Scotia Province—Cape Breton S. District—Population (1941) 8,198—Altitude 135 feet—Area 3,840 acres.

Sydney Mines is situated on the entrance to Sydney Harbour. The Canadian National Railway passes through the town. The British Canadian Co-operative Society, Ltd., has its headquarters in the town of Sydney Mines. The nearest airport is at Reserve, twenty-two miles away. There is suitable land for establishment of local factories.

Principal Local Industries: Coal mining.

The Pas—Manitoba Province—Population (1946) 3,056—Altitude 880 feet.

The Pas is located on the shores of the Saskatchewan and The Pas Rivers. Its population of nearly four thousand white people is mostly formed of French Canadians.

The railway connecting this town with the south and north to Flin Flon and Sherridon is the Canadian National, and that to Churchill is the Hudson Bay Railway. The Pas is the Gateway to the north. There are two airports, one for sea craft and the other for land planes. The dock for sea planes is three miles from the town and the other is twenty miles by highway.

The local Chamber of Commerce has a good membership of all the local merchants and business men.

Newspaper: Northern Mail (daily).

Principal Local Industries: Fisheries, farming, lumbering, and fur trading (trapping).

Agricultural Products: Farming, in Carrot River Valley.

Enquiries: The Tourist Information Bureau, The Pas, Manitoba.

Thetford Mines—Quebec Province—Megantic County District—Population (1941) 12,716—Altitude 1,026·37 feet—Area 2,880 acres—Rateable Value $8,707,555·6.

Thetford Mines, the Queen city in the field of Asbestos mining, is also a commercial centre. It has a railway and Senior and Junior Chambers of Commerce. The City Hall is authorised to loan $100,000 to help the establishment of local new factories for which large places, large workmanship, water power and good communication facilities are offered.

Newspapers: Weekly: *Le Canadien; Le Megantic; Le Progrès de Thetford.*

Principal Local Industries: Dresses, gloves, steel and brass products, wood, soft drinks.

Mines: Asbestos mines (world centre).

Agricultural Products: Milk, butter, ice cream.

Enquiries: Hughes Publicité, Casier Postal, 302, Thetford Mines, Quebec.

Thorold—Ontario Province—Niagara Peninsula District—Population (1941) 5,305—Altitude 570 feet—Area 1,129 acres—Rateable Value $3,706,707.

Rail and canal facilities. Airport within six miles of town.

Newspapers: The Thorold Post; The Thorold News.

Principal Local Industries: Paper-making, newsprint, sulphite pulp, groundwood, pulpboards, boxboards, book and bond papers, abrasives, yeast, roofing felt, macaroni, industrial and home insulation, automotive forgings, mining and pole-line hardware, oil burners, die-cast products, wholesale coal dock, warehouse and forwarding dock, lumber companies, oil companies.

Quarries: Stone quarries.

Agricultural Products: Dairy products, fruit, market garden products.

Enquiries: Mr. P. E. Buss, Secretary, Thorold Board of Trade, Thorold, Ontario, Canada.

Tillsonburg—Ontario Province—Oxford County District—Population (1941) 4,002—Altitude 800 feet—Area 1,600 acres—Rateable Value $2,701,973.

Tillsonburg is situated at the junction of Highways Nos. 3 and 19. One of the finest harbours on the northern shore of Lake Erie is situated at Port Burwell, 16 miles south of Tillsonburg on No. 19 Highway. Tillsonburg is served by the Canadian National Railway, the Canadian Pacific Railway, the Wabash Railway and the New York Central Railway. To the south and east of Tillsonburg the flue-cured tobacco is predominant; to the north and west are to be found some of the finest dairying farms in the Dominion of Canada.

Newspaper: Tillsonburg News.

Principal Local Industries: Shoe company, tube furniture and equipment, foundry and machine shop, auto bodies, cooperage, rakes, hoes, forks and cultivators.

Agricultural Products: Tobacco, milk, creamery.

Timmins—Ontario Province—Cochrane District—Population (1941) 28,790—Altitude 1,060 feet—Area 2,170 acres.

Timmins, population 29,000, is located on the Mattagami River, which offers convenient access to undeveloped territory to the north-west and south-west of the municipality. Situated at the terminus of the main line of the Timiskaming and Northern Ontario Railway, 486 miles north of Toronto, Timmins is a financial and commercial centre for the Porcupine Mining District.

The Hollinger Mine which is one of the largest gold mines in North America is located at Timmins and there are many other operating mines, within a radius of 15 miles, including the Dome and McIntyre. The mining industries in normal times, employ over 10,000 men in the area. Other industries of importance are several active lumber mills in the immediate vicinity.

Ample power is available from plants operated by the Ontario Hydro-Electric Power Commission. The water supply obtained from the Mattagami River, is adequate. There are five banks, Canadian Bank of Commerce, Dominion Bank of Canada, Imperial Bank of Canada, Bank of Montreal and Bank of Nova Scotia. Educational facilities are excellent, twelve elementary schools, one high school, and a vocational school. Several fine hotels are located at Timmins.

Practically all sporting activities are available to the enthusiast with a nine-hole golf course located in the municipality; baseball and softball facilities are provided by Hollinger. McIntyre Arena in the adjoining settlement of Schumacher, one of the finest in Canada, provides for hockey, curling, bowling, auditorium, gymnasium and restaurant service.

Newspapers: Timmins Press (daily); *Porcupine Advance* (weekly).

Principal Local Industries: Gold mining, brewery, sawmills.

Mines: Gold mining (main industry).

Agricultural Products: Market gardening in surrounding district.

Enquiries: V. Salomaa, Town Clerk, Timmins, Ontario.

Toronto—Ontario Province—York County District—Population (1941) 667,457; Greater Toronto 900,491—Altitude 268 feet—Area 22,400 acres—Rateable Value (1948) $984,839,123.

The city of Toronto is located on the north shore of Lake Ontario and is midway by rail between New York and Chicago. The name Toronto is of Huron Indian origin meaning "a place of meeting." The city is well named. In 1947 the city was host to 94,050 convention delegates and in addition over a million tourists. Toronto is the second manufacturing city in Canada in point of production, the chief wholesale distributing centre and leads in the volume of insurance and trust and loan business transacted. Many Toronto establishments carry on trading operations throughout the Dominion of Canada and import from and export to practically all the markets of the world. The city is well served by two trans-continental railway systems, by water transportation and is the principal point for air traffic in Canada. The city is also well served by modern paved highways radiating to all parts of the Province of Ontario and connecting with adjacent Provinces as well as with the United States. The Board of Trade is an integral part of the business life of Toronto, having served the city since its inception in 1834. The Toronto Industrial Commission was established in 1928 for the purpose of securing and aiding industries in the Toronto area, an area full of advantages for business and manufacturing.

Newspapers: The Globe and Mail; The Evening Telegram; The Star.

Principal Local Industries: 3,482 manufacturing industries of a general nature. No one type predominates and this number includes manufacturers of agricultural machinery, agricultural implements, general machinery, tools, wood and paper products, chemical and mineral products, textiles, motor vehicles, meat packing, food processing, printing and publishing, tourist and convention industry.

Enquiries: Toronto Convention and Tourist Association, 37, Bloor Street West, Toronto 5. Toronto Industrial Commission, 320, Bay Street, Toronto 1.

Trail—British Columbia Province—Kootenay District—Population (1941) 9,392—Altitude 1,200 feet—Area 846 acres—Rateable Value $6,933,701.

Newspaper: Times (daily).

Principal Local Industries: Lead and zinc smelter, chemical fertiliser plant, two bottling works.

Agricultural Products: Vegetables, fruit, dairies and poultry.

Transcona—Manitoba Province—St. Boniface District—Population (1946) 6,016—Altitude 771 feet—Area 5,502 acres—Rateable Value $2,258,000.

Transcona is situated 7 miles east of the city of Winnipeg and is served by the Canadian National Railway. The Canadian Pacific Railway runs past the north of the town and serves the Canada Creosote Company's plant in Transcona.

There is abundance of electric power. Winnipeg Hydro-Electric System serves the town and the Canadian National Railway.

The Winnipeg street railway electric system and the Manitoba Power Commission lines pass through the town.

Water is supplied by the Greater Winnipeg Water District System. It also passes through the town before entering the city.

The town's sewer system is connected with the Greater Winnipeg Sanitary District system.

There are several good sites adjacent to the railway set aside for manufacturing plants.

Electric power and light and water rates are about the lowest in the west.

Newspapers: The Transcona and Eastern Manitoba News.

Principal Local Industries: Dominion Malting Co., Canada Creosote Co. (Dominion Tar and Chemical Co., Ltd.), Canadian National Railway Shops.

Enquiries: Manitoba Tourist Bureau, Legislative Building Winnipeg, Manitoba.

Trenton—Ontario Province—Hastings County District—Population (1941) 8,323—Altitude 255 feet—Area 1,800 acres—Rateable Value $4,071,000.

Trenton (population approximately 10,000), is located on the Toronto to Montreal Highway, about 100 miles east of the former city.

It is served by the Canadian National Railway and the Canadian Pacific Railway, being a terminal point for the latter.

Situated on the Bay of Quinte at the mouth of the Trent River, it has also excellent facilities for water transportation.

The R.C.A.F. maintains its principal training centre at Trenton and as such provides landing facilities for all types of planes.

The town is a manufacturing centre as well as being surrounded by excellent farm land where the main crop is apples.

There are excellent industrial sites available with railway siding and water transportation facilities.

Recreational activities are well provided for and labour, unskilled particularly, is available.

Nearly three hundred houses are in the course of erection within the town and another lot of between one and two hundred is being built by the Dominion Government on the outskirts.

Newspapers: The Courier Advocate (weekly, Thursdays); *Daily Press* (Tuesdays, Thursdays and Saturdays).

Principal Local Industries: Silverware plating, hollow ware, etc., textiles, pants manufacturing, paper board, dyeing and finishing, steel fabrication, shoes, cooperage, food processing, cold storage plants (two).

Agricultural Products: Truck gardening and apple growing.

Enquiries: Clayton Maxwell, President of the Chamber of Commerce, or to O. W. Larry, Clerk-Treasurer of the town of Trenton.

Trois-Rivières—Quebec Province — St. Maurice County District—Population (1941) 42,007—Altitude 51 feet—Area 3,200 acres—Rateable Value $60,096,014.

Trois Rivières has a silo (Three Rivers Grain and Elevator) which is a private enterprise (non-co-operative).

Newspapers: Le Nouvelliste (French, daily); *St. Maurice Valley Chronicle* (English, weekly); *La Chronique* (French, weekly); *Le Bien Public* (French, weekly).

Principal Local Industries: Pulp and paper, newsprint, iron, cotton, gloves, shirts, wrought iron, wire wearing, gas, skis, caskets, cold cathode, neon, glass, castings, wood carving, tombstones, building materials, mattress, sash and doors, footwear.

Quarry: Limestone quarry.

Enquiries: Chamber of Commerce, 168, Bonaventure Street, Trois Rivières.

Truro—Nova Scotia Province—Colchester-Hants District—Population (1941) 10,272.

Newspapers: Daily News; Weekly News.

Val d'Or—Quebec Province—Pontiac District—Population (1941) 4,385.

Newspaper: Star.

Valleyfield—Quebec Province—Beauharnois District—Population (1941) 17,052—Altitude 155 to 170 feet—Area 15,700 acres—Rateable Value about $14,000,000.

Valleyfield is an area endowed to service industry. Located on the eastern end of Lake St. Francis, on the south shore of the St. Lawrence River, it is an official port of entry. The Canadian Railway and the New York Central Railway give daily services. A channel is suitable for barge transportation. The waters of the St. Lawrence River are converted to electrical energy by three power plants operating at strategic points and generating a total of 900,000 horse power. Valleyfield is 25 miles from the United States border and 35 miles from Montreal. Valleyfield has two Chambers of Commerce and an Industrial Committee for the establishment of local factories.

Newspapers: Three weeklies: *La Gazette de Valleyfield; Le Progres de Valleyfield; Le Salaberry.*

Principal Local Industries: Largest cotton industry in Canada, silk, dyeing, sash-door factories, hockey industry, bronze, streptomycyn, chemicals, bottlers, dress and pants factories, distillers, millers.

Quarries: Two limestone quarries.

Agricultural Products: Potatoes, corn, hay, straw, oats, barley, clover, and other products. Dairy industry is very much to the fore in Valleyfield.

Enquiries: J. C. Lefebvre, c/o La Gazette de Valleyfield.

Vancouver—British Columbia Province—Vancouver District—Population (1941) City: 275,353, Greater Vancouver 351,491—Altitude sea level—Area 43,965 square miles—Rateable Value $237,691,931.

Vancouver is situated on the shores of Burrard inlet and English Bay, bounded to the south by the waters of the Straits of Georgia and to the south-east by the North Arm of the Fraser River. Located in the Coast Range of the Rockies, about fifteen miles due north of the International Boundary, it is approximately 80 miles by boat from Victoria, capital of the province, and about 140 miles north of Seattle, chief industrial and financial centre of the neighbouring state of Washington. The city is known as Canada's " Gateway to the Pacific," most of Canada's rapidly increasing imports and exports from and to the Orient pass through this port.

Vancouver is rapidly assuming the appearance of a metropolis, and is fast becoming one of the continent's great ports. Commercially and industrially its progress during the past decade has been extraordinary.

Vancouver is served by the Trans-Canada, the Canadian National and the Canadian Pacific Railways, with branch lines throughout the province. There are electric tram services to Fraser Valley points. There is a network of year-round motor transport passenger services throughout the Lower Mainland. In addition to the foregoing services a number of truck transport companies operate from Vancouver to Fraser Valley. There is also provision for year-round sightseeing service by Motor Tours. United Airlines maintain a year-round daily passenger service to Seattle, linking Vancouver with its network of lines operating south and west. Trans-Canada Air Lines operate a passenger and mail service between Vancouver and eastern Canada. Canadian Pacific Airlines operates daily service to Nanaimo, Prince Rupert, Whitehorse and Calgary. Australian National Airways operates two services weekly to Australia from Vancouver. There are frequent passenger and freight steamships services to Europe and the United Kingdom, California and West Coast of the United States, to Central and South America, to the Orient, to Australia and other countries.

There is no Provincial income tax and no county taxes or personal property taxes.

About 250,000 horse power is developed for use in and around the city of Vancouver. The light and power rates are the cheapest and the water supply the largest and best on the Pacific Coast.

Newspapers: Province ; Sun; News Herald.

Principal Local Industries: Lumbering trade, shipbuilding, general manufacturing, canning industry.

Agricultural Products: All tree fruits, except citrus fruits.

Enquiries: R. H. Baker, Vancouver Tourist Association, 596, West Georgia Street.

Verdun—Quebec Province—Montreal District—Population (1941) 67,349—Altitude 75 feet—Area 1,426 acres—Rateable Value $49,690,110.

Verdun is the third largest city in the Province of Quebec, and the twelfth largest city in the Dominion of Canada. Its population is growing steadily from year to year. Situated between the Lachine Canal and the Montreal water intake canal and the St. Lawrence River, it is surrounded on its land borders by the city of Montreal to the north and north-west and by the town of La Salle on the south and south-west. It has no further room for expansion, and by the end of this year there will not be a single vacant building lot available. There are about sixty small industries, but there is no room for any more, and the city will remain essentially residential in character. Verdun owns a very modern civic auditorium and the finest outdoor notatorium in Canada.

Newspapers: The Verdun Messenger (bi-lingual, Thursdays); *The Verdun Guardian* (English, weekly).

Principal Local Industries: 60 small industries; no room for any more.

Agricultural Products: Some garden produce.

Enquiries: J. A. T. Richards, 1,744 Centre Street, Montreal 22, Province of Quebec, Canada.

Vernon—British Columbia Province—Okanagan Valley District—Population (1941) 5,209—Altitude 1,250 feet—Area 2,200 acres—Rateable Value $6,103,435.

Newspapers: Vernon News (weekly); *Vernon Advertiser* (weekly).

Principal Local Industries: Fruit and vegetables, farming (general), fruit and vegetable canning and dehydrating, cold storage plant, pad and drum and excelsior factory, aerated drinks manufacturing, sawmills, pottery, lumber, fishing and hunting, considerable tourist business.

Agricultural Products: Grain, vegetables.

Enquiries: Vernon Board of Trade, Vernon, British Columbia, Canada.

Victoria—British Columbia Province—Vancouver Island—Population (1941) 44,068—Altitude sea level—Area 68·9 square miles—Rateable Value 45·5 mills.

The Esquimalt and Nanaimo Railway, a link in the Canadian Pacific Railway system, and the Canadian National Railway combine to provide efficient and economic transportation and communication facilities on land and sea. Trans-Canada Air Lines offer frequent connections with Eastern Canada and the U.S.

Deep Sea shipping facilities are available in Victoria's Outer Harbour at Ogden Point Docks protected by a solid granite block breakwater, 2,750 feet long. Five deep sea vessels can be accommodated at one time. Two large ship building and repair yards guarantee complete service to all vessels.

Energetic and progressive business men of the Victoria Chamber of Commerce devote much of their free time to the needs of local industry and to the catering to of new industry. The Industrial Bureau of the Chamber is prepared to answer and investigate any queries or problems on behalf of potential industry.

Newspapers: Victoria Daily Colonist (morning); *Victoria Daily Times* (noon and evening).

Principal Local Industries: Barrels, beds, beverages, biscuits, boats, boxes, bricks, cement, chemicals, china, chocolates, christmas crackers, clothing, explosives, felt and textiles, furniture, luggage, matches, paint, paper, plastic, roofing, sheet metal, ships, spirits, lumber and fishing, and their many subsidiary industries; oysters, antique reproduction, wines, sterling products, peanut butter, rugs.

Mines or Quarries: Stone and sand. Island hinterland—iron, copper, gold, limestone, talc, silver.

Agricultural Products: Vegetables, strawberries, raspberries, loganberries, holly, dairy, wheat, bulbs, flowers.

Enquiries: Mr. George I. Warren, Commissioner, Victoria and Island Publicity Bureau, P.O. Box 608, Victoria, British Columbia. Industrial Bureau, Victoria Chamber of Commerce, P.O. Box 608.

Victoriaville—Quebec Province—Arthabaska District—Population (1941) 8,516—Altitude 1,500 feet.

Newspapers: Voix des Bois-Francs; Union des Cantons de l'Est.

Principal Local Industries: Furniture and men's clothing factories, shoes.

Wallaceburg—Ontario Province—Kent County District—Population (1941) 4,986—Altitude 580 feet—Area 945 acres—Rateable Value $3,502,124.

Wallaceburg, with a population of 6,800, plus 800 to 1,000 living in the residential section outside the town limits, is a Lake-port and has direct connections with the Great Lakes Waterway. The Chesapeake and Ohio Railway, which operated between Chatham (24 miles south) and Sarnia (30 miles north), connects with the main Canadian National Railway and Canadian Pacific Lines—freight only. Four Motor Transports call daily at Wallaceburg. There is also a bus service. There is an ample supply of hydro-electric power, as well as an ample supply of water for industrial and domestic use.

Wallaceburg has a Chamber of Commerce, a Junior Chamber of Commerce, three service clubs, nine churches, two public, two separate and two high schools, four hotels, three banks and a $100,000 skating and sports arena. Fixed assessments are enjoyed by most large industries, usually for a period of 10 years.

Newspaper: The Wallaceburg News (weekly).

Principal Local Industries: Glassware, sugar, food products, plumbers hardware, die castings, iron castings, aluminium cast pressure cookers, etc., chromeplating, flour mill, brick and tile works, tool and die works, smoking pipes, dairy products, dehydrated feeds, grain elevators (limited capacity).

Agricultural Products: Sugar beets, wheat, corn, tomatoes, soya beans, tobacco, fruits, cattle, hogs and poultry.

Enquiries: John M. Burnett, Secretary-Treasurer, Wallaceburg Chamber of Commerce.

Waterloo—Ontario Province—Waterloo County District—Population (1941) 9,025—Altitude 1,057 feet—Area 2,921 acres—Rateable Value $1,252,415.

Newspaper: Waterloo Chronicle (weekly).

Principal Local Industries: Furniture, metal products, shirts, farm machinery, barrels, beer, spirits.

Agricultural Products: Located in centre of rich farming district.

Enquiries: The Secretary, Waterloo Chamber of Commerce, Waterloo, Ontario.

Waterloo—Quebec Province—Shefford County District—Population (1941) 3,173—Altitude 350 feet—Area 1,250 acres.

Waterloo (4,000 population), is an industrial town located in the easterntownships on No. 1 Highway (Montreal-Sherbrooke), 62 miles from Montreal and 100 from Sherbrooke, and the two major railway companies (Canadian Pacific Railway and Canadian National Railway), are giving the local industries the best available services for freight and express. The community offers the following advantages in the line of welfare and organisations: Kiwanis Club International; Knights of Columbus; Chamber of Commerce; Co-operative (for farmers).

The nearest aerodrome is located in Granby (12 miles).

Two bus lines give the population the best of travelling facilities (Provincial Transport Co., and Ideal Transport Reg'd.).

Newspaper: Le Journal de Waterloo.

Principal Local Industries: Plastic and bakelite oil burners, chairs, plywood crates, bicycles, mushrooms, carnations and rhubarb, condensed milk.

Agricultural Products: Dairy products and farm products.

Enquiries: J. A. F. Bouchard, Secretary-Treasurer, P.O. Box 38, Waterloo, Quebec, Canada.

Welland—Ontario Province—Welland County District—Population (1941) 12,500—Area 1,100 acres. At present plans under way to annex 1,450 additional acres.

Welland has beautiful residential areas, and is in the centre of the beautiful Niagara peninsula with all types of recreation—a new arena, a new curling rink, 66 acres of park, bowling, tennis courts, fair grounds, pools for children and adults, one of the most beautiful golf courses in Canada 5 miles to the north-west, boating, miles of beautiful beaches to choose from, from 7 to 20 miles away, fishing.

Welland is within the Buffalo Switching area and, therefore, enjoys low rates. Welland has a great geographic and economic advantage in that it is within easy reach of most of the United States states and the rest of Canada. Coach Lines operate daily service to out of town points and a local fast service to any point in the vicinity. Coach lines connect Welland with the Canadian National Railway in St. Catharines, and a bus service connects it with all points to Windsor. There is an airport a few minutes west of Welland. Welland is astride the Welland Canal, with dockage space. Welland owns its own filtration plant.

The populace is the most cosmopolitan in Canada giving Welland the advantages of all the inherent skills of most nationalities.

Welland has a High and Vocational School, with General Commercial and Vocational courses, and night classes for workers.

The Welland County Hospital has recently acquired many new conveniences which make it one of the most up-to-date in Canada.

Newspaper: Welland-Port Colborne Evening Tribune.

Principal Local Industries: Fine steel, stool steels, forgings, dies, fertilisers, oxygen, cotton woollen yarns, ferro alloys, jigs, vacuum cleaners, oil burners, hardware forgings, plastic and rubber products, hard and soft rubber, work clothes, pipes and tubing, twine, mining machinery, furnaces, stainless steel valves etc., brass and grey forgings, cotton products, etc.

Agricultural Products: Market gardening, fruit—peaches, cherries, grapes, apples, etc.

Enquiries: L. A. Rice, Manager, Greater Welland Chamber of Commerce, Hotel Reeta, Welland.

Westmount—Quebec Province—Montreal District—Population (1941) 26,047—Altitude 656 feet—Area 976·58 acres—Rateable Value 17½ mills. general; 12 mills. school; on capital value of land and buildings. Two and a half mills. for local improvements on the land value only.

Westmount is ideally situated on the western slopes of Mount Royal. It is entirely surrounded by the city of Montreal. Its character is largely residential and it is governed by a council composed of a mayor and five aldermen elected for two year terms by the proprietors and chief occupants. The main line of the Canadian Pacific Railway cuts across the south-western extremity and provides excellent passenger facilities at Westmount Station. Its citizens form an integral part of the larger Montreal community, and Montreal will furnish information such as Board of Trade, aerodromes, co-operative societies, and other similar facilities. Factories may be erected in the area south of Canadian Pacific Railway right-of-way.

Principal Local Industries: Pharmaceutical and radio-phonograph, bakeries, ice manufacturing.

Enquiries: General Manager, City Hall, Westmount.

Weston—Ontario Province—York County District—Population (1941) 5,740—Altitude 467 feet—Area 622 acres—Rateable Value $6,129,983 excluding exemptions.

Newspapers: Times and *Guide.*

Principal Local Industries: Bicycles and skates, refrigerators and radios, building products, machines, etc.

Enquiries: G. H. Clarkson, Town Clerk.

Westville—Nova Scotia Province—Pictou District—Population (1941) 4,115.

Weyburn—Saskatchewan Province—Weyburn Electoral District—Population (1946) 6,945—Altitude 1,857 feet—Area 3,329 acres—Rateable Value $3,006,480.

Newspaper: The Weyburn Review.

Principal Local Industries: Flour milling, creameries.

Agricultural Products: Wheat, oats, barley, flax, cattle, horses, hogs.

Whitby—Ontario Province—Ontario District—Population (1941) 5,904.

Windsor—Nova Scotia Province—Hants County District—Population (1941) 3,436—Altitude 23·815 feet—Area 3½ square miles—Rateable Value $2,144,502.

Windsor, an old historic town on the Avon River, an estuary of the Basin of Minas, is 45 miles from the all-year seaport of Halifax. It is the gateway of the Annapolis Valley, rich in the production of apples and other fruits and vegetables.

Windsor is just three miles from the famous Gypsum Quarries. These quarries are in the suburbs and a new loading plant has been recently built at Hantsport seven miles from Windsor. Ten thousand tons are loaded during the tide, about 2½ hours. This is transported to Staten Island, New York.

A great quantity of lumber is cut in this district and shipped to the United Kingdom and elsewhere.

An extensive Barite deposit at Walton, a few miles from Windsor, is in full operation. There is also an extensive Magnesite deposit in the vicinity.

Windsor has one of the best supplies of domestic water service in the province. The Avon Power Co., supplies electric power to industries, homes and farms.

Newspapers: The Hants Journal; The Windsor Tribune.

Principal Local Industries: Ground limestone, textiles and underwear, fertilisers, plaster for construction purposes, three sash and door factories, lumber.

Mines: Gypsum mining.

Agricultural Products: Apple raising, vegetables.

Enquiries: Windsor Board of Trade, Windsor, Nova Scotia.

Windsor—Ontario Province—Essex County District—Population (1941) 105,311. Great Windsor 121,112—Altitude 580 feet—Area 5,042 acres—Rateable Value $91,225,720. Telephone and Telegraph Income assessment $1,172,060.

Newspaper: The Windsor Daily Star.

Principal Local Industries: Vegetable products, animal products, textiles, wood and paper, iron and its products, non-ferrous metal, non-metallic mineral, chemical, pharmaceuticals, service industries (railways, telephone, utilities, etc.), by-products of salt and limestone.

Mines or Quarries: Limestone quarry in Amherstburg, 18 miles from Windsor. Salt mines in the Windsor area.

Agricultural Products: Corn, soya beans, sugar beets, tobacco and early vegetables.

Enquiries: Mr. H. J. Lassaline, Secretary-Manager, Windsor Chamber of Commerce, 1,007, Canada Building, Windsor, Ontario.

Windsor Mills—Quebec Province—Richmond-Wolfe District—Population (1941) 3,368.

Winnipeg—Manitoba Province—Winnipeg District—Population (1946) 224,091—Altitude 760 feet—Area 16,000 acres—Rateable Value (1947) $192,192,820.

Winnipeg, with a population of 231,414, is properly known as the gateway to the west, as it is located on the threshold of a thousand miles of prairie. It lies midway between the Atlantic and Pacific Oceans, sixty miles from the International boundary. The Red and Assiniboine Rivers flow through the city.

All east-west travel systems pass through the city and its geographical position makes Winnipeg a major marketing and distribution centre. The largest privately owned railway yards in the world are located in Winnipeg which is also headquarters for Trans-Canada Air Lines and Canadian Headquarters of North-West Airlines.

Its water supply is ideal and inexhaustible. Many buildings are steam heated from a central, municipally owned plant. Winnipeg has the cheapest electric power on the continent.

It is an important manufacturing centre. The abundance of raw material, ample and steady cheap power adequate water supply and suitable sites, transportation facilities and markets, afford expansion along this line.

Winnipeg has the second largest fur market in Canada, and it is the outlet of an enormous grain trade, and its grain exchange is world renowned.

The largest stockyards in the British Empire are located in the twin city of St. Boniface.

Winnipeg is now fast becoming the supplying centre for a vast new mining empire that is being opened up in the north.

It is a leading financial centre with its bank clearances the third largest in the country.

Newspapers: Winnipeg Citizen; Winnipeg Free Press; Winnipeg Tribune (daily); and 23 more (17 foreign) published weekly or oftener.

Principal Local Industries: Slaughtering and meat packing, foods, miscellaneous, bags, cotton and jute, clothing, men and women's, butter and cheese, bread and bakery products, printing and publishing, transportation, construction service, trade and finance, fish, fur and lumber products.

Mines or Quarries: None within city limits. The municipality owns an asphalt plant, quarry and gravel pit, while in the area tributary to the city are found building stone, copper, nickel, gold, lithium, uranium.

Agricultural Products: Wheat and other grains, flax, sunflowers, vegetables for canning and market use, beef and dairy cattle, swine, fur farms.

Enquiries: Travel and Publicity Bureau, Legislative Building, Winnipeg, Manitoba.

Woodstock—New Brunswick Province—Carleton County District—Population (1941) 3,593—Altitude 150-200 feet.

Woodstock, "The gateway to New Brunswick," is situated ten miles from the United States border amid the most picturesque surroundings in a rich agricultural district.

Newspaper: The Sentinel-Press.

Principal Local Industries: Agriculture, woollen mill, woodworking factories.

Agricultural Products: Potatoes, dairy products.

Enquiries: Mr. Grant Kirkpatrick, Secretary, Board of Trade, Woodstock, New Brunswick.

Woodstock—Ontario Province—Oxford District—Population (1941) 12,461.

Newspaper: Sentinel Review.

Yarmouth—Nova Scotia Province—Yarmouth District—Population (1941) 7,790—Altitude sea level—Area 2,750 acres—Rateable Value $4,208,000.

Yarmouth, on the south-western shore of the province of Nova Scotia on the Atlantic Ocean, has an excellent safe harbour.

It is served by the Canadian National and Canadian Pacific Railways and a steamship line to Boston, Mass., during the months of June, July, August and September.

Yarmouth is on Trans-Canada Air Line Route, Boston, Halifax, St. John.

It has a Board of Trade and a shopping centre serving a population of 45-50,000. It is an excellent site for factories manufacturing products which could be exported by water transportation.

Newspapers: Herald-Telegram (weekly); *Light* (weekly).

Principal Local Industries: Textiles, fish oil and meals, fish processing, woodworking, wooden boxes, bottling aerated waters, cold storage, Irish moss.

Mines or Quarries: Silica.

Agricultural Products: Strawberries, blueberries, cranberries, turnips.

Enquiries: Yarmouth County Tourist Information Bureau, Box 340, Yarmouth, Nova Scotia.

Yorkton—Saskatchewan Province—Population (1946) 5,517—Altitude 1,600 feet—Area 2,800 acres—Rateable Value $4,000,000.

Yorkton is the centre of a large and thickly populated district. Mixed farming is the main agricultural activity.

Newspaper: Enterprise (weekly).

Principal Local Industries: Creameries, bottling works, flour mills, planing mills, wholesale distributing warehouses.

Agricultural Products : Large mixed farming district.

Enquiries: The Secretary, The Board of Trade, Yorkton, Saskatchewan, Canada.

DOMINION OF CANADA

GOVERNOR-GENERAL

His Excellency Field-Marshal The Right Hon. The Viscount Alexander of Tunis, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., LL.D., A.D.C.

Governor-General's Staff

Secretary to the Governor-General: Major-General H. F. G. Letson, C.B., C.B.E., M.C., E.D.

Controller of the Household: Major Mark Milbank, M.C., Coldstream Guards.

Assistant Secretary to the Governor-General: J. S. Delante.

Senior Aide-de-Camp: Captain Edson Sherwood, R.C.N.

Aides-de-Camp: Squadron-Leader A. Tollemache, G.C., R.A.F.; Captain D. S. W. Lloyd-Thomas, Irish Guards.

The Dominion Cabinet

Prime Minister and President of the Privy Council: The Right Honourable Louis Stephen St. Laurent, K.C.

Minister of Trade and Commerce: Right Hon. Clarence Decatur Howe.

Minister of Agriculture: Right Hon. James Garfield Gardiner.

Minister of Mines and Resources: Hon. James Angus MacKinnon.

Secretary of State of Canada: Hon. Colin William George Gibson, M.C., K.C., V.D.

Secretary of State for External Affairs: Hon. Lester Bowles Pearson, O.B.E.

Minister of Labour: Hon. Humphrey Mitchell.

Minister of Justice and Attorney-General of Canada: Hon. Stuart Garson.

Minister of Public Works: Hon. Alphonse Fournier, K.C.

Postmaster-General: Hon. Ernest Bertrand, K.C.

Minister of National Defence: Hon. Brooke Claxton, K.C.

Solicitor-General of Canada: Hon. Joseph Arthur Jean, K.C.

Minister of Transport: Hon. Lionel Chevrier, K.C.

Minister of National Health and Welfare: Hon. Paul Joseph James Martin, K.C.

Minister of Finance: Hon. Douglas Charles Abbott, K.C.

Minister of National Revenue: Hon. James Joseph McCann, M.D.

Member of the Administration and Minister without Portfolio: Hon. Wishart McLea Robertson.

Minister of Veterans Affairs: Hon. Milton Fowler Gregg, V.C.

Minister of Fisheries: Hon. Robert Wellington Mayhew.

Minister of Reconstruction and Supply: Col. Hon. Robert Henry Winters.

Members of Senate

Appointed to represent the Province of Alberta:
Senator the Hon. William A. Buchanan.
Senator the Hon. A. Blais.
Senator the Hon. Fred William Gershaw.

Appointed to represent the Province of British Columbia:
Senator the Hon. James H. King, P.C.
Senator the Hon. J. W. de B. Farris.
Senator the Hon. James Gray Turgeon.
Senator the Hon. Stanley S. McKeen.
Senator the Hon. Ian Allistair Mackenzie, K.C.

Appointed to represent the Province of Manitoba:
Senator the Hon. Henry A. Mullins.
Senator the Hon. John T. Haig.
Senator the Hon. A. L. Beaubien.
Senator the Hon. Thomas Alexander Crerar, P.C.
Senator the Hon. John Power Howden.

Appointed to represent the Province of New Brunswick:
Senator the Hon. Thos. Jean Bourque.
Senator the Hon. John A. McDonald.
Senator the Hon. Arthur Bliss Copp, P.C.
Senator the Hon. George B. Jones, P.C.
Senator the Hon. Antoine J. Léger.
Senator the Hon. Clarence Joseph Veniot.
Senator the Hon. Alexander Neil McLean.
Senator the Hon. Frederick W. Pirie.
Senator the Hon. George Percival Burchill.

Appointed to represent the Province of Nova Scotia:
Senator the Hon. William Henry Dennis.
Senator the Hon. Felix Patrick Quinn.
Senator the Hon. Wm. Duff.
Senator the Hon. D. MacLennan.
Senator the Hon. W. McL. Robertson, P.C.
Senator the Hon. John James Kinley.
Senator the Hon. John Alexander McDonald.

Appointed to represent the Province of Ontario:
Senator the Hon. James J. Donnelly.
Senator the Hon. Gerald V. White, C.B.E.
Senator the Hon. Arthur C. Hardy, P.C.
Senator the Hon. Sir Allen B. Aylesworth, P.C., K.C.M.G.
Senator the Hon. Wm. H. McGuire.
Senator the Hon. Gustave Lacasse.
Senator the Hon. Cairine R. Wilson.
Senator the Hon. James Murdock, P.C.
Senator the Hon. Donald Sutherland, P.C.
Senator the Hon. Iva Campbell Fallis.
Senator the Hon. Norman P. Lambert.
Senator the Hon. S. A. Hayden.
Senator the Hon. N. M. Paterson.
Senator the Hon. J. J. Duffus.
Senator the Hon. W. D. Euler, P.C.
Senator the Hon. W. Rupert Davies.
Senator the Hon. G. P. Campbell.
Senator the Hon. William Horace Taylor.
Senator the Hon. Charles L. Bishop.
Senator the Hon. Arthur Wentworth Roebuck.
Senator the Hon. Joseph Raoul Hurtubise.
Senator the Hon. Thomas Farquhar.

Appointed to represent the Province of Prince Edward Island:
Senator the Hon. John E. Sinclair, P.C.
Senator the Hon. John A. Macdonald, P.C.
Senator the Hon. J. P. McIntyre.
Senator the Hon. Brewer Robinson.

Appointed to represent the Province of Quebec:
Senator the Hon. C. P. Beaubien.
Senator the Hon. Donat Raymond.
Senator the Hon. C. C. Ballantyne, P.C.
Senator the Hon. Lucien Moraud.
Senator the Hon. Eugene Paquet, P.C.
Senator the Hon. A. Knatchbull-Hugessen.
Senator the Hon. J. F. Fafard.
Senator the Hon. C. B. Howard.
Senator the Hon. Elie Beauregard.
Senator the Hon. Athanase David.
Senator the Hon. E. C. St-Père.
Senator the Hon. W. J. Hushion.
Senator the Hon. L. M. Gouin.
Senator the Hon. Thomas Vien, P.C.
Senator the Hon. P. R. DuTremblay.
Senator the Hon. T. D. Bouchard.
Senator the Hon. Armand Daigle.
Senator the Hon. J. A. Lesage.
Senator the Hon. Cyrille Vaillancourt.
Senator the Hon. Jacob Nicol.
Senator the Hon. Charles Edouard Ferland.
Senator the Hon. Vincent Dupuis.
Senator the Hon. Jean Marie Dessureault.
Senator the Hon. Paul Henri Bouffard.

Appointed to represent the Province of Saskatchewan:
Senator the Hon. J. A. Calder, P.C.
Senator the Hon. Arthur Marcotte.
Senator the Hon. R. B. Horner.
Senator the Hon. W. M. Aseltine.
Senator the Hon. J. J. Stevenson.

Speaker: The Hon. James H. King, P.C.

Clerk of the Senate: L. C. Moyer, D.S.O., K.C.

Leader of the Government: The Honourable Wishart McL. Robertson, P.C.

Leader of the Opposition: The Hon. John T. Haig, K.C.

MEMBERS OF THE KING'S PRIVY COUNCIL FOR CANADA, ACCORDING TO SENIORITY THEREIN[1]

NOTE.—In this list the prefix Rt. Hon. indicates membership in the Imperial Privy Council. Besides those mentioned in this list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., retired Chief Justice of Canada, is a Canadian member of the Imperial Privy Council.

Name	*Date When Sworn in*	Name	*Date When Sworn in*
The Hon. Sir A. B. Aylesworth	Oct. 16, 1905	The Hon. Esioff Leon Patenaude	Oct. 6, 1915
The Rt. Hon. W. L. Mackenzie King	June 2, 1909	The Rt. Hon. William Morris Hughes	Feb. 10, 1916
The Rt. Hon. Sir Thomas White	Oct. 10, 1911	The Hon. Albert Sevigny	Jan. 8, 1917
The Rt. Hon. Arthur Meighen	Oct. 2, 1915	The Hon. Charles Colquhoun Ballantyne	Oct. 3, 1917

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[1] As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in.

MEMBERS OF THE KING'S PRIVY COUNCIL FOR CANADA, ACCORDING TO SENIORITY THEREIN[1]—*cont.*

NOTE.—In this list the prefix Rt. Hon. indicates membership in the Imperial Privy Council. Besides those mentioned in the list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., retired Chief Justice of Canada, is a Canadian member of the Imperial Privy Council.

Name	*Date When Sworn in*
The Hon. James Alexander Calder	Oct. 12, 1917
The Hon. Sydney Chilton Mewburn	Oct. 12, 1917
The Hon. Thomas Alexander Crerar	Oct. 12, 1917
The Hon. Sir Henry Lumley Drayton	Aug. 2, 1919
The Hon. Fleming Blanchard McCardy	July 13, 1920
The Hon. Henry Herbert Stevens	Sept. 21, 1921
The Hon. Arthur Bliss Copp	Dec. 29, 1921
The Hon. James Murdock	Dec. 29, 1921
The Hon. John Ewan Sinclair	Dec. 30, 1921
The Hon. James Horace King	Feb. 3, 1922
The Hon. Edward James McMurray	Nov. 14, 1923
The Hon. George Newcombe Gordon	Sept. 7, 1925
The Rt. Hon. Charles Vincent Massey	Sept. 16, 1925
The Hon. Phillippe Roy	Feb. 9, 1926
The Hon. Charles A. Dunning	Mar. 1, 1926
The Hon. George Burpee Jones	July 13, 1926
The Hon. Donald Sutherland	July 13, 1926
The Hon. Raymond Ducharme Morand	July 13, 1926
The Hon. John Alexander Macdonald	July 13, 1926
The Hon. Eugene Paquet	Aug. 23, 1926
The Hon. Lucien Cannon	Sept. 25, 1926
The Hon. William Daum Euler	Sept. 25, 1926
H.R.H. The Duke of Windsor	Aug. 2, 1927
The Hon. Cyrus Macmillan	June 17, 1930
The Rt. Hon. Ian Allistair Mackenzie	June 27, 1930
The Hon. Arthur C. Hardy	July 31, 1930
The Hon. Hugh Alexander Stewart	Aug. 7, 1930
The Hon. Donald Matheson Sutherland	Aug. 7, 1930
The Hon. Alfred Duranleau	Aug. 7, 1930
The Hon. Thomas Gerow Murphy	Aug. 7, 1930
The Hon. W. D. Herridge	June 17, 1931
The Hon. Robert Charles Matthews	Dec. 6, 1933
The Hon. Richard Burpee Hanson	Nov. 17, 1934
The Hon. Grote Stirling	Nov. 17, 1934
The Hon. George Reginald Geary	Aug. 14, 1935
The Hon. James Earl Lawson	Aug. 14, 1935
The Hon. Samuel Gobeil	Aug. 14, 1935
The Hon. Lucien Henri Gendron	Aug. 30, 1935
The Hon. William Earl Rowe	Aug. 30, 1935
The Hon. Onesime Gagnon	Aug. 30, 1935
The Hon. Charles Gavan Power	Oct. 23, 1935
The Rt. Hon. James Lorimer Ilsley	Oct. 23, 1935
The Hon. Joseph Enoil Michaud	Oct. 23, 1935
The Rt. Hon. Clarence Decatur Howe[3]	Oct. 23, 1935
The Rt. Hon. James Garfield Gardiner[3]	Nov. 4, 1935
The Hon. James Angus MacKinnon[3]	Jan. 23, 1939
The Hon. Pierre F. Casgrain	May 10, 1940
The Hon. Colin W. G. Gibson[3]	July 8, 1940
The Hon. William Pate Mulock	July 8, 1940
The Hon. Angus L. Macdonald	July 12, 1940
The Hon. Leighton G. McCarthy	Mar. 4, 1941
The Hon. Joseph T. Thorson	June 11, 1941
The Hon. William F. A. Turgeon	Oct. 8, 1941
The Rt. Hon. Louis Stephen St. Laurent[2]	Dec. 10, 1941
The Hon. Humphrey Mitchell[3]	Dec. 15, 1941
The Rt. Hon. Winston S. Churchill	Dec. 29, 1941
The Hon. Alphonse Fournier[3]	Oct. 7, 1942
The Hon. Ernest Bertrand[3]	Oct. 7, 1942
The Hon. Leo R. LaFleche	Oct. 7, 1942
The Hon. Brooke Claxton[3]	Oct. 13, 1944
The Hon. A. G. L. McNaughton	Nov. 2, 1944
The Hon. James Allison Glen	Apr. 18, 1945
The Hon. Joseph Jean[3]	Apr. 18, 1945
The Hon. Lionel Chevrier[3]	Apr. 18, 1945
The Hon. Paul Joseph James Martin[3]	Apr. 18, 1945
The Hon. Douglas Charles Abbott[3]	Apr. 18, 1945
The Hon. James J. McCann[3]	Apr. 18, 1945
The Hon. David Laurence MacLaren	Apr. 18, 1945
The Hon. Thomas Vien	July 19, 1945
The Hon. Wishart McL. Robertson[3]	Sept. 4, 1945
The Hon. Milton Fowler Gregg[3]	Sept. 2, 1947
The Hon. Robert Wellington Mayhew[3]	June 11, 1948
The Hon. Lester Bowles Pearson[3]	Sept. 10, 1948

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[1] As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in. [2] Ranks as the Prime Minister of Canada. [3] Ranks as a member of the Cabinet.

Members of the House of Commons

Speaker: Hon. Gaspard Fauteux.

Clerk of the House: Arthur Beauchesne, C.M.G., K.C., M.A.

Opposition Leader Lt.-Col. Hon. George Alexander Drew, K.C.

Members:

Abbott, Hon. Douglas C.—St. Antoine-Westmount.
Adamson, A. Rodney—York West.
Archibald, Harry G.—Skeena.
Argue, Hazen, Robert—Wood Mountain.
Arsenault, Bona—Bonaventure.
Ashby, Patrick H.—Edmonton East.
Aylesworth, Wilbert Ross—Frontenac—Addington.
Baker, Loran Ellis—Shelburne—Yarmouth—Clare.
Barrett, Theobald Butler—Norfolk.
Beaudoin, Louis René—Vaudreuil—Soulanges.
Beaudry, Roland—St. James.
Belzile, Gleason—Rimouski.
Benidickson, William M.—Kenora—Rainy River.
Bentley, Thomas J.—Swift Current.
Bertrand, Hon. Ernest—Laurier.
Bertrand, Elie Oscar—Prescott.
Bertrand, Lionel—Terrebonne.
Black, Donald E.—Chateauguay—Huntingdon.
Black, George—Yukon.
Black, Percy Chapman—Cumberland.
Blackmore, John H.—Lethbridge.
Blair, William Gourlay—Lanark.
Blanchette, J. Adéodat—Compton.
Boivin, Marcel—Shefford.
Bonnier, J. Arsène—St. Henry.
Boucher, G. Russell—Carleton.
Bourget, Maurice—Levis.
Bowerman, Edward Leroy—Prince Albert.
Bracken, John—Neepawa.
Bradette, Joseph—Cochrane.
Bradshaw, Albert James—Perth.
Breithaupt, Louis Orville—Waterloo North.
Brooks, Alfred J.—Royal.
Brown, Donald Ferguson—Essex West.
Brunelle, Hervé Edgar—Champlain.
Bryce, William—Selkirk.
Burton, Joseph William—Humboldt.
Campbell, Max—The Battlefords.

Members of the House of Commons—*contd.*

Caouette, Real—Pontiac.
Cardiff, Lewis Elston—Huron North.
Case, Wilfrid Garfield—Gray North.
Casselman, Arza Clair—Grenville—Dundas.
Castleden, George Hugh—Yorkton.
Charlton, John Alpheus—Brant.
Chevrier, Hon. Lionel—Stormont.
Church, Thomas Langton—Broadview.
Clark, Stewart Murray—Essex South.
Claxton, Hon. Brooke—St. Lawrence—St. George.
Cleaver, Hughes—Halton.
Cloutier Armand—Drummond—Arthabaska.
Cockeram, Alan—York South.
Coldwell, Major James—Rosetown Biggar.
Coté, Alcide—St. Johns—Iberville—Napierville.
Coté, A. Phileas—Matapedia.
Coté, Paul Emile—Verdun.
Cournoyer, Gerard—Richelieu—Verchères.
Coyle, Charles Delmar—Elgin.
Croll, David Arnold—Spadina.
Cruickshank, George A.—Fraser Valley.
Daniel, Kenneth R.—Oxford.
Déchène, Joseph—Miville—Athabaska.
Denis, Azellus—St. Denis.
Desmond, Clayton Earl—Kent.
Dickey, John H.—Halifax.
Diefenbaker, John George—Lake Centre.
Dion, J. Alfred—Lake St. John—Roberval.
Dionne, Ludger—Beauce.
Dorion, Frederic—Charlevoix—Saguenay.
Douglas, J. Lester—Queens.
Drope, Robert Earle—Northumberland (Ontario).
Dubois, Lucien—Nicolet—Yamaska.
Emmerson, Henry Read—Westmorland.
Eudes, Raymond—Hochelaga.
Fair, Robert—Battle River.
Farquhar, Thomas—Algoma East.
Fauteux, Hon. Gaspard—St. Mary.
Ferguson, Julian Harcourt—Simcoe North.
Fleming, Donald Methuen—Eglinton.
Fontaine, Joseph—St. Hyacinthe—Bagot.
Fournier, Hon. Alphonse—Hull.
Fournier, Sarto—Maisonneuve—Rosemont.
Fraser, Gordon K.—Peterborough West.
Fulton, Edmund Davie—Kamloops.
Gagnon, Paul Edmond—Chicoutimi.
Gardiner, Hon. James G.—Melville.
Gariepy, Wilfred—Three Rivers.
Gauthier, Leoda—Nipissing.
Gauthier, Pierre—Portneuf.
Gibson, Hon. C. W. G.—Hamilton West.
Gibson, John Lambert—Comox—Alberni.
Gillis, Clarence—Cape Breton South.
Gingues, Maurice—Sherbrooke
Gladstone, Robert W.—Wellington South.
Glen, Hon. J. A.—Marquette.
Golding, William Henry—Huron—Perth.
Gour, Joseph Omer—Russell.
Gourd, David—Chapleau.
Grant, Thomas Vincent—Kings.
Graydon, Gordon—Peel
Green, Howard Charles—Vancouver South.
Gregg, Hon. Milton F.—York—Sunbury.
Hackett, John Thomas—Stanstead.
Hallé, Maurice—Brome—Missisquoi.
Hamel, Joseph Irenée—St. Maurice—Laflèche.

Members of the House of Commons—*contd.*

Hansell, Ernest George—Macleod.
Harkness, Douglas Scott—Calgary East.
Harris, Joseph Henry—Danforth.
Harris, Walter Edward—Grey Bruce.
Hartt, Maurice—Cartier.
Hatfield, Heber Harold—Victoria—Carleton.
Hazen, D. King—Saint John—Albert.
Healy, Thomas P.—St. Ann.
Henderson, Robert James—Lambton—Kent.
Héon, Georges H.—Argenteuil.
Herridge, Herbert Wilfred—Kootenay West.
Hlynka, Anthony—Vegreville
Hodgson, Clayton W.—Victoria.
Homuth, Karl—Waterloo South.
Howe, Rt. Hon. Clarence D.—Port Arthur.
Ilsley, Rt. Hon. James L.—Digby—Annapolis—Kings.
Irvine, William—Cariboo.
Isnor, Gordon B.—Halifax.
Jackman, Harry R.—Rosedale.
Jaenicke, Frank Eric—Kindersley.
Jaques, Norman—Wetaskiwan.
Jean, Hon. Joseph A.—Mercier.
Johnston, Charles E.—Bow River.
Jutras, René Norbert—Provencher.
Kidd, Thomas Ashmore—Kingston, Ontario.
King, Right Hon. William Lyon Mackenzie—Glengarry.
Kirk, James Ralph—Antigonish, Guysborough.
Knight, Robert Ross—Saskatoon.
Knowles, Stanley H.—Winnipeg North Centre.
Kuhl, Walter Frederic—Jasper—Edson.
Lacombe, J. R. Ligouri—Laval—Two Mountains.
LaCroix, Wilfrid—Quebec—Montmorency.
Lafontaine, Joseph—Mégantic—Frontenac.
Lalonde, Maurice—Labelle.
Langlois, J. G. Leopold—Gaspé.
Lapalme, Georges Emile—Joliette L'Assomption Montcalm.
Lapointe, Hugues—Lotbinière
Laurendeau, Alderic—Berthier-Maskinonge.
Leger, Aurel D.—Kent.
Lennard, Frank Exton—Wentworth.
Lesage, Jean—Montmagny-L'Islet.
Little, Walter—Timiskaming.
Lockhart, Norman J. M.—Lincoln.
Low, Solon Earl—Peace River.
Macdonald, W. Ross—Brantford City.
MacDonnell, James M.—Muskoka—Ontario.
MacInnis, Angus—Vancouver East.
MacKinnon, Hon. J. A.—Edmonton West.
MacLean, Matthew—Cape Breton North—Victoria.
MacLure, A. Chester S.—Queens.
MacNicol, John R.—Davenport.
Maloney, John William—Northumberland, N.B.
Manross, Park A.—London, Ontario.
Marier, Elphege—Jacques Cartier.
Marquis, Eugène—Kamouraska.
Marshall, James A.—Camrose.
Martin, Hon. Paul—Essex East.
Massey, Denton—Greenwood.
Matthews, James Ewen—Brandon.
Matthews, James Herbert—Kootenay East.
Maybank, Ralph—Winnipeg South Centre.
Mayhew, Robert W.—Victoria.
McCann, Hon. James J.—Renfrew South.
McCuaig, Duncan John—Maple Creek.
McCubbin, Robert—Middlesex West.

Members of the House of Commons—*contd.*

McCulloch, Henry B.—Pictou.
McCullough, Edward G.—Assiniboia.
McDonald, Bucko—Parry Sound.
McGarry, Moses Elijah—Inverness-Richmond.
McGregor, Robert H.—York East.
McIlraith, George J.—Ottawa West.
McIvor, Daniel—Fort William.
McKay, Eric Bowness—Weyburn.
McMaster, William A.—High Park.
McNaught, John Watson—Prince.
Menary, Lewis—Wellington North.
Merrit, Charles C. I.—Vancouver-Burrard.
Michaud, Benoit—Restigouche Madawaska.
Miller, Calvert C.—Portage la Prairie.
Mitchell, Hon. Humphrey—Welland.
Moore, Ronald—Churchill.
Mullins, James Patrick—Richmond—Wolfe.
Murphy, Joseph Warner—Lambton West.
Mutch, Leslie A.—Winnipeg South.
Nicholson, Alexander M.—Mackenzie.
Nixon, George Ewart—Algoma West.
Parent, Charles—Quebec West and South.
Pearkes, George R.—Nanaimo.
Picard, Louis Philippe—Bellechasse.
Pinard, Roch—Chambly Rouville.
Pouliot, Jean François—Temiscouata.
Power, Hon. Charles G.—Quebec South.
Probe, John Oliver—Regina City.
Quelch, Victor—Acadia.
Raymond, Joseph Leon—Wright.
Raymond Maxime—Beauharnois—Laprairie.
Reid, Thomas—New Westminster.
Richard, Jean T.—Ottawa East.
Richard, Clovis T.—Gloucester.
Rinfret, Edouard Gabriel—Outremont.
Robinson, Andrew E.—Bruce.
Robinson, William Alfred—Simcoe East.
Rose, Douglas G.—St. Paul's.
Ross, James Arthur—Souris.
Ross, Thomas Hambly—Hamilton East.
Rowe, Hon. William Earl—Dufferin—Simcoe.
St. Larent, Rt. Hon. L. S.—Quebec East.
Senn, Mark Cecil—Haldimand.
Shaw, Frederick Davis—Red Deer.
Sinclair, James—Vancouver North.
Sinclair, Williams, E. N.—Ontario.
Sinnott, John Sylvester—Springfield.
Skey, Larry—Trinity.
Smith, Arthur Leroy—Calgary West.
Smith, John E.—York North.
Stanfield, Frank T.—Colchester-Hants.
Stevenson, Charles E.—Durham.
Stewart, Alistair McL.—Winnipeg North.
Stokes, George Henry—Hastings South.
Strum, Mrs. Gladys—Qu'Appelle.
Stuart, Andrew Wesley—Charlotte.
Thatcher, Wilbert Ross—Moose Jaw.
Timmins, Harold, W.—Parkdale.
Townley-Smith, F. W.—North Battleford.
Tremblay, Leonard D.—Dorchester.
Tucker, Walter Adam—Rosthern.
Tustin, George James—Prince Edward Lennox.
Viau, Fernand—St. Boniface.
Warren, Ralph Melville—North Renfrew.
Webb, George Robert—Leeds.
Weir, William Gilbert—Macdonald.

Members of the House of Commons—*contd.*

White, George Stanley—Hastings—Peterborough.
White, Harry Oliver—Middlesex East.
Whitman, Frederick P.—Mount Royal.
Winkler, Howard W.—Lisgar.
Winters, Robert H.—Queens—Lunenburg.
Wright, Percy E.—Melfort.
Wylie, William Duncan—Medicine Hat.
Zaplitny, Fred S.—Dauphin.

COURTS AND JUDGES OF THE DOMINION OF CANADA

Judges and Staff of the Supreme Court and the Exchequer Court of Canada, Ottawa, Ontario

The names of the Judges and Registrars of the several divisions of the Supreme Court and the Exchequer Court of Canada are given below :—

Supreme Court of Canada, Appellate Division:—

Chief Justice : The Right Honourable Thibaudeau Rinfret.

Puisne Judges :
- Hon. Patrick Kerwin.
- Hon. Robert Taschereau.
- Hon. I. C. Rand.
- Hon. T. L. Kellock.
- Hon. J. W. Estey.
- Hon. Charles H. Locke.

Registrar : Paul Leduc, K.C.

The Exchequer Court of Canada:—

President : Hon. J. T. Thorson.

Puisne Judges :
- Hon. E. R. Angers.
- Hon. Charles G. O'Connor.
- Hon. J. C. A. Cameron.

Registrar : H. R. L. Henry, K.C.

Provincial and Local Divisions:—

Alberta

Supreme Court, Appellate Division:—

Chief Justice of the Appellate Division :
- Hon. Horace Harvey.

Justices of Appeal :
- Hon. William Alexander Macdonald.
- Hon. Frank Ford.
- Hon. Harold Hayward Parlee.
- Hon. George Bligh O'Connor.

Trial Division:—

Chief Justice :
- Hon. William Robinson Howson.

Puisne Judges :
- Hon. Simpson James Shepherd.
- Hon. Colin Campbell McLaurin.
- Hon. Hugh John Macdonald.
- Hon. Clinton James Ford.
- Hon. J. Boyd McBride.

Registrars :
- A. Simpson.
- J. H. Charman, K.C.

British Columbia

Court of Appeal:—

Chief Justice of British Columbia :
Hon. Gordon McG. Sloan.

Justices of Appeal :
Hon. Cornelius H. O'Halloran.
Hon. Sidney A. Smith.
Hon. H. B. Robertson.
Hon. Henry I. Bird.

Registrars : C. G. White ; J. F. Mathers.

Supreme Court:—

Chief Justice : Hon. Wendell B. Farris.

Puisne Judges :
Hon. A. M. Manson.
Hon. J. O. Wilson.
Hon. James M. Coady.
Hon. Herbert S. Wood.
Hon. A. D. Macfarlane.
Hon. Norman W. Whittaker.

District Judge in Admiralty : Hon. Sidney A. Smith.

Manitoba

Court of Appeal:—

Chief Justice of Manitoba : Hon. E. A. McPherson.

Puisne Judges of the Court of Appeal :
Hon. H. A. Bergman.
Hon. S. E. Richards.
Hon. J. B. Coyne.
Hon. Andrew K. Dysart.

Registrar : Augustus J. Christie.

Court of the King's Bench:—

Chief of the Court of King's Bench :
Hon. E. K. Williams.

Puisne Judges of the Court of King's Bench :
Hon. A. K. Dysart
Hon. J. E. Adamson.
Hon. W. J. Donovan.
Hon. P. J. Montague.
Hon. W. J. Major.
Hon. Arnold M. Campbell.

Registrar : Augustus J. Christie.

New Brunswick

Supreme Court of New Brunswick, Appeal Division:—

Chief Justice of New Brunswick :

Puisne Judges :
Hon. W. H. Harrison.
Hon. Peter J. Hughes.

King's Bench Division:—

Chief Justice : Hon. Joseph E. Michaud.

Puisne Judges :
Hon. A. T. LeBlanc.
Hon. C. D. Richards.
Hon. J. H. A. L. Fairweather.

Registrar, Supreme Court : H. Lester Smith, B.C.L.

Nova Scotia

Supreme Court:—

Chief Justice : Hon. Sir Joseph A. Chisholm.

Puisne Judges :
Hon. R. H. Graham.
Hon. W. F. Carroll.
Hon. Wm. L. Hall.
Hon. J. Doull.
Hon. M. B. Archibald.
Hon. Josiah H. Macquarrie.

Judge in Equity : Hon. R. H. Graham.

District Judge in Admiralty of the Exchequer Court for the District of Nova Scotia : Hon. W. F. Carroll.

Registrar : L. S. Whinyard.

Ontario

Supreme Court:—

Chief Justice of Ontario : Hon. Robert S. Robinson.

Justices :
Hon. R. G. Fisher.
Hon. W. T. Henderson.
Hon. R. E. Laidlaw.
Hon. Wilfred D. Roach.
Hon. J. A. Hope.
Hon. Frederick Drummond Hogg.
Hon. John R. Aylesworth.

High Court of Justice for Ontario:—

Chief of the High Court: Hon. James C. McRuer

Justices: Hon. G. F. McFarland; Hon. John Keiller Mackay; Hon. Edgar Rodolphe E. Chevrier; Hon. George A. Urquhart; Hon. D. P. J. Kelly; Hon. F. H. Barlow; Hon. A. M. LeBel; Hon. John L. Wilson; Hon. R. W. Treleaven; Hon. W. F. Schroeder; Hon. D. C. Wells; Hon. P. E. F. Smily; Hon. G. A. Gale; Hon. J. C. Genest.

Registrar of the Supreme Court: Charles Walter Smyth, K.C.

Prince Edward Island

Supreme Court:—

Chief Justice: Hon. Thane A. Campbell.

Judge: Hon. Mark R. MacGuigan.

Registrar in Admiralty: Reginald H. Rogers, M.A., B.C.L.

Quebec

(Montreal).

Court of King's Bench:—

Chief Justice of Quebec: Hon. Severin Letourneau.

Judges: Hon. Paul St. Germain; Hon. J. L. St. Jacques; Hon. Errol M. W. McDougall; Hon. Gregor Barclay; Hon. Bernard Bissonnette; Hon. E. Stuart McDougall; Hon. Paul C. Casey.

Superior Court:—

Judges: Hon. O. S. Tyndale (Associate Chief Justice); Hon. L. P. Demers; Hon. C. A. Duclos; Hon. J. L. M.

Loranger; Hon. E. F. Surveyer; Hon. P. Cousineau; Hon. A. Trahan; Hon. L. Boyer; Hon. Jos. Archambault; Hon. J. J. Denis; Hon. Louis Cousineau; Hon. C. G. MacKinnon; Hon. A. Duranleau; Hon. J. Theodule Rhéaume; Hon. Wilfred Lazure; Hon. Elie Salvas; Hon. Chas. A. Bertrand; Hon. P. Francois Casgrain; Hon. Frederick T. Collins; Hon. Alexander J. Campbell; Hon. Gerald Fauteux; Hon. Hector Perrier.

(Quebec).

Court of King's Bench:—

Judges: Hon. Aimé Marchand; Hon. Antonin Galipeault; Hon. Garon Pratte; Hon. J. A. Gagné.

Superior Court:—

Chief Justice: Hon. Albert Sevigny.

Judges: Hon. G. F. Gibsone; Hon. W. Laliberté; Hon. Noel Belleau; Hon. Romeo Langlais; Hon. Lucien Cannon; Hon. Alfred Savard; Hon. Oscar L. Boulanger; Hon. Pierre E. Côté; Hon. Wilfred Girouard; Hon. Wilfred Edge.

(Sherbrooke)

Superior Court:—

Judges: Hon. C. D. White; Hon. C. Gervais.

(Three Rivers)

Superior Court:—

Judges: Hon. H. A. Fortier; Hon. J. Emile Ferron.

Saskatchewan

Court of Appeal:—

Chief Justice of Saskatchewan: Hon. William Melville Martin.

Puisne Judges of Appeal: Hon. Hector Y. MacDonald; Hon. Percival H. Gordon; *Hon. Thomas C. Davis; Hon. P. M. Anderson.

Registrar: A. C. Ellison, K.C.

* Hon. T. C. Davis is absent on leave without pay while serving as ambassador to China.

Court of the King's Bench:—

Chief Justice: Hon. J. T. Brown.

Puisne Judges of King's Bench: Hon. G. E. Taylor; Hon. H. W. Bigelow; Hon. Adrien Doiron; Hon. D. A. McNiven; Hon. W. G. Ross.

Registrar: A. C. Ellison, K.C.

Department of Agriculture

Minister of Agriculture: The Rt. Hon. James Garfield Gardiner. K.C.

Deputy Minister: G. S. H. Barton, C.M.G., B.S.A., D.Sc.A.

Assistant Deputy Minister: J. G. Bouchard, C.B.E., B.A., Ing. Agric., Litt.D., F.R.S.C.

Director-in-Chief of Services: J. G. Taggart, C.B.E., B.S.A.

Experimental Farms Service:—

Director: E. S. Archibald, C.B.E., B.A., B.S.A., D.Sc., LL.D.
Associate Director: E. S. Hopkins, Ph.D.
Dominion Agrostologist: T. M. Stevenson, Ph.D.
Dominion Animal Husbandman: Geo. Muir, B.S.A.
Dominion Apiarist: C. B. Gooderham, B.S.A.
Dominion Cerealist: L. H. Newman, B.S.A., D.Sc.
Dominion Field Husbandman: P.O. Ripley, Ph.D.
Domionion Horticulturist: M. B. Davis, M.Sc.
Dominion Illustration Stations Division, Chief Supervisor: J. C. Moynan, B.S.A.
Dominion Poultry Husbandman: H. S. Gutteridge, M.Sc. (Acting).
Economic Fibre Production Division, Chief: R. J. Hutchinson.
Tobacco Division, Chief: N. A. MacRae, Ph.D.

Marketing Service:—

Director: A. M. Shaw, C.M.G., B.S.A.
Chief, Markets Information Section: R. M. Scott, B.A., B.S.A.
Associate Director of Marketing, Agricultural Economics: J. F. Booth, O.B.E., Ph.D.
Senior Agricultural Economist: J. Coke, M.Sc.
Associate Director of Marketing, Dairy Products: J. F. Singleton, C.B.E.
Assistant Director, Marketing Service, Fruit and Vegetable Products: R. L. Wheeler.
Assistant Director, Marketing Service, Live Stock and Live Stock Products: L. W. Pearsall, C.B.E., B.S.A.

Production Service:—

Director: R. S. Hamer, C.B.E., B.S.A.
Associate Director of Production Service, Health of Animals (Veterinary Director General): T. Childs, V.S.
Assistant Director of Production Service, Live Stock: J. M. McCallum, B.S.A.
Assistant Director of Production Service, Plant Products: N. Young, B.S.A.

Agricultural Science Service:—

Director: K. W. Neatby, B.S.A., M.S.A., Ph.D., F.R.S.C.
Dominion Agricultural Bacteriologist: A. G. Lochhead, B.A., Ph.D., F.R.S.C.
Dominion Agricultural Chemist: C. H. Robinson, B.A.
Dominion Animal Pathologist: C. A. Mitchell, V.S., D.V.M., F.R.S.C.
Dominion Botanist and Plant Pathologist: J. H. Craigie, B.A., M.Sc., Ph.D., F.R.S.C.
Dominion Entomologist: H. G. Crawford, B.S.A., M.S.
Plant Protection Service, Chief: W. N. Keenan.

Meat Board:—

Chairman: L.W. Pearsall, C.B.E., B.S.A.
Members: S. E. Todd, O.B.E., B.S.A. (Manager Council of Canadian Meat Packers); F. H. Auld, M.B.E., B.S.A., LL.D.; W. E. Tumon (Secretary, Ontario, Hog Producers, Marketing Board, Toronto); J. A. Proulx.

Dairy Products Board:—

Chairman: John F. Singleton, C.B.E. (Associate Director of Marketing Service, Dairy Products Division, Department of Agriculture.

Members: John Freeman, C.B.E. (Director, Lovell & Christmas (Canada) Ltd.), Joseph Felix Desmarais.

Special Products Board:—

Chairman: A. M. Shaw, C.M.G. (Director of Marketing Service).
Members: R. S. Hamer, C.B.E. (Director of Marketing Service), W. F. Bull (Director of Export Division, Department of Trade and Commerce.

Agricultural Prices Support Board:—

Chairman: J. G. Taggart, C.B.E., B.S.A. (Director-in-Chief, Agricultural Services).
Members: Joseph Ambroise Proulx.

Department of External Affairs

Secretary of State for External Affairs: The Honourable Lester Bowles Pearson, O.B.E.
Under-Secretary of State for External Affairs: Data not available at time of going to press.
Assistant Under-Secretary of State for External Affairs: Laurent Beaudry.

Department of Finance

Minister of Finance and Receiver General of Canada: The Honourable Douglas Charles Abbott, K.C.
Parliamentary Assistant to the Minister of Finance: R. W. Mayhew; G. Belzile.
Deputy Minister of Finance and Secretary of the Treasury Board: W. C. Clark.
Assistant Deputy Ministers: K. W. Taylor; A. K. Eaton; R. B. Bryce.
Comptroller of the Treasury: B. G. McIntyre.
Director, Economic Policy Division: M. W. Sharp.
Director, Economic Relations Division: J. J. Deutsch.
Director of Estimates: W. Smellie.
Inspector-General of Banks: C. F. Elderkin.
Director, Farmers' Creditors' Arrangement Act: C. A. Port.
Chief Dominion Book-keeper: W. E. Hunter.

Canadian Farm Loan Board:—

Chairman and Farm Loan Commissioner: Dr. J. D. MacLean.
Members: Dr. W. Clifford Clark; Duncan Ross; Dr. T. F. Donnelly.

Department of Fisheries

Minister of Fisheries: The Hon. Robert Wellington Mayhew.
Deputy Minister of Fisheries: Stewart Bates.
Assistant Deputy Minister: D. H. Sutherland.
Director of Fish Culture: C. J. Atkinson (acting).
Fisheries Engineer: Charles Bruce.
Director of Information: H. F. S. Paisley
Director, Eastern Fisheries: A. L. Barry.
Director, Commercial Services: Frank Harrison.

Fisheries Research Board:—

Joint Acting Chairmen: Professor J. R. Dymond; Dr. C. B. Reed.
Hon. Secretary: D. H. Sutherland.
Hon. Treasurer: F. O. Weeks.

Department of Insurance

Superintendent: G. D. Finlayson.
Chief Actuary: A. D. Watson.
Chief Examiner: W. H. Gilliland.
Senior Actuary: K. R. MacGregor.
Chief Administrative Officer: R. W. Warwick.
Examiners: J. R. E. Patterson; H. W. Stinson; A. G. Robertson.

Department of Justice

Minister of Justice and Attorney General of Canada: The Hon. Stuart Garson.
Solicitor General: The Hon. Joseph Arthur Jean, K.C.
Deputy Minister: F. P. Varcoe, C.M.G., K.C.
Assistant Deputy Ministers: C. Stein; W. R. Jackett.
Legal Officers: Paul Fontaine, K.C.; R. A. Olmsted; D. W. Mundell; E. A. Drieber; D. H. W. Henry; A. J. MacLeod; J. D. Affleck; A. H. Laidlaw.
Director, Remission Service: M. F. Gallagher, K.C.

Department of Labour

Minister: The Honourable Humphrey Mitchell, K.C.
Deputy Minister: A. MacNamara.
Director of Research and Statistics: Harry Hereford.
Director of Information and Publicity: V. C. Phelan.
Director of Vocational Training Branch: R. F. Thompson.
Director of Industrial Relations: M. M. MacLean.

Wartime Labour Relations Board (National):—

Chairman: The Hon. Mr. Justice G. B. O'Connor.
Vice-Chairman: A. H. Brown.

Vocational Training Advisory Council:—

Chairman: Dr. G. F. McNally (Chancellor of the University of Alberta).

Unemployment Insurance Commission:—

Chief Commissioner: J. G. Bisson, O.B.E.
Commissioner: R. J. Tallon.

Department of Mines and Resources

Minister of Mines and Resources: Hon. James Angus MacKinnon, K.C.
Deputy Minister of Mines and Resources: H. L. Keenleyside, M.A., Ph.D.

Special Projects:—

Director: J. M. Wardle, C.B.E., B.Sc.

Mines, Forests and Scientific Services:—

Director: W. B. Timm, B.Sc.

Bureau of Mines:—

Chief: C. S. Parsons, O.B.E., B.Sc.
Chief, Division of Mineral Resources: G. C. Monture, O.B.E., B.Sc.
Chief, Division of Mineral Dressing and Metallurgy: R. J. Trail.
Chief, Division of Fuels: R. E. Gilmore, M.A., M.Sc.
Chief, Inspector of Explosives: W. P. Campbell, M.Sc.

Dominion Forest Service:—

Dominion Forester (acting): D. A. Macdonald, B.Sc.

Geological Survey of Canada:—

Chief: G. S. Hume, O.B.E., B.A., Ph.D., F.R.S.C.
Chief Geologist: G. Hanson, M.A., Ph.D., R.F.S.C.

Surveys and Mapping Bureau:—

Chief: F. H. Peters, O.B.E., D.L.S.
Assistant Chief: W. H. Miller, B.Sc.
Chief Topographical Engineer: K. G. Chipman, S.B.
Chief, Aerial Surveys Engineer: R. B. McKay, B.Sc., D.L.S.
Dominion Geodesist: J. L. Rannie, B.A.Sc., D.T.S.

Dominion Water and Power Bureau:—

Controller and Chief Engineer: V. Meek, B.Sc.
Assistant Controller and Assistant Chief Engineer: N. Marr, B.A.Sc., C.E.

Geographical Bureau:—

Chief: Trevor Lloyd, B.Sc., Ph.D.

Dominion Observatory, Ottawa:—

Dominion Astronomer: G. S. Beals, M.A., Ph.D., D.Sc., F.R.S.C.

Dominion Astrophysical Observatory, Victoria, British Columbia:—

Dominion Astrophysicist: J. A. Pearce, M.A., Ph.D., F.R.S.C.

Lands and Development Services:—

Director: Roy A. Gibson, I.S.O.

Northwest Territories and Yukon Services:—

Director (acting), Mackenzie District and Northwest Territories: M. Meikle, B.Sc., D.L.S.
Director, Yukon Division: C. K. LeCapelain.
Director, Arctic: J. G. Wright, B.Sc., D.L.S.

National Parks Service:—

Controller: James Smart, O.B.E.
Assistant Controller: J. E. Spero.

Historic Sites and Monuments Board:—

Chairman: J. Clarence Webster, C.M.G., M.D., D.Sc., LL.D., F.R.S.C.
Members: Professor F. Landon, M.A., F.R.S.C.; Professor D. C. Harvey, M.A., LL.D., F.R.S.C.; J. A. Gregory; The Honourable E. Fabre Surveyer, K.C., LL.M., B.C.L., LL.D., F.R.S.C.; Reverend Antoine D'Eschambault, D.S.T., D.J.C.; Major G. Lanctot, K.C., B.Litt., LL.M., D.Litt., LL.D., F.R.S.C.; Professor M. H. Long, M.A.; Professor Walter N. Sage, M.A., Ph.D., F.R.S.C., F.R.Hist.S., Vancouver; W. D. Cromarthy.

Dominion Wildlife Service:—

Director (Acting), Harrison F. Lewis, Ph.D.

Advisory Board on Wild Life Protection:—

Chairman: Dr. Marius Barbeau, D.Litt.

Engineering and Construction Service:—

Chief Engineer (Acting): T. S. Mills, B.A., B.Sc.

Indian Affairs Branch:—

Director: R. A. Hoey.

Department of National Health and Welfare

Minister: The Honourable Paul J. J. Martin, K.C.
Deputy Minister: G. D. W. Cameron, M.D., D.P.H.
Deputy Minister of Welfare: G. F. Davison, Ph.D.

Department of National Revenue

Minister: The Honourable James Joseph McCann, M.D.
Deputy Minister (Customs and Excise): David Sim, C.M.G.
Assistant Deputy Minister (Customs): P. L. Young.
Assistant Deputy Minister (Excise): V. C. Nauman.

Income Tax Division:—

Deputy Minister (Taxation): V. W. Scully.
Assistant Deputy Minister (Assessments Branch): W. F. Williams.
Assistant Deputy Minister and Director General, Legal Branch: W. S. Fisher.

Board of Referees:—

Chairman: The Honourable Mr. Justice J. D. Hyndman.
Members: K. A. Mapp; Charles A. Gray; T. N. Kirby; Alexander Gray; E. C. Grundy; Edward Oakes.

Department of the Postmaster General

Postmaster General: The Honourable Ernest Bertrand, K.C., B.A., LL.B., M.P.
Deputy Postmaster General: W. J. Turnbull.
Director of Administration: E. J. Underwood.
Director of Operations: L. German.
Director of Communications: G. Herring.

Department of Reconstruction and Supply

Minister: Col. The Honourable Robert Henry Winters.
Deputy Minister: V. W. Scully.
Director General (Administration Branch): P. E. R. Malcolm.
Controls:
Steel Controller: W. E. Uren.
Timber Controller: W. E. Uren.

Air Transport Board:—

Chairman: R. A. C. Henry, C.M.G.
Members: Alan Ferrier; J. P. Romeo Vachon.

Dominion Coal Board:—

Chairman: W. E. Uren.

Forest Insects Control Board:—

Chairman: Major General G. H. Kennedy.
Economic Research Branch, Director General: A. Skelton.

Department of the Secretary of State

Secretary of State of Canada and Registrar General of Canada: Col. The Honourable Colin Gibson, M.C., V.D., K.C.
Under Secretary of State and Deputy Registrar General: E. H. Coleman, C.M.G., K.C., LL.D.
Assistant Under Secretary of State, Advisory Counsel and Officer i/c of Companies Branch: W. P. J. O'Meara, K.C., B.A.

Office of the Custodian of Enemy Property:—

Custodian: Col. The Honourable Colin Gibson, M.C., V.D., K.C.
Deputy Custodian: E. H. Coleman, C.M.G., K.C., LL.D.
Assistant Deputy Custodian: A. H. Mathieu, M.B.E.

Canadian Citizenship Branch:—

Director: Frank Foulds.
Assistant Director: Dr. Louis Charbonneau.

Department of Trade and Commerce

Minister: The Right Honourable Clarence Decatur Howe, K.C., B.Sc.
Deputy Minister: M. W. Mackenzie.
Assistant Deputy Minister: Oliver Master.
Dominion Bureau of Statistics:
Dominion Statistician: H. Marshall, O.B.E., B.A., F.R.S.
Assistant Dominion Statistician (Administration Division), J. T. Marshall.
Assistant Dominion Statistician: Dr. C. M. Isbister.
Agricultural Statistics Division: C. V. Parker.
Canada Year Book Division: A. E. Millward, B.A., B.Com.
Census Division: O. A. Lemieux, M.B.E., M.S.A., Ph.D.
Fisheries and Animal Products Statistics: W. H. Lanceley.
Forestry Statistics: L. J. Pouliot, B.A.
Education: Dr. J. E. Robbins.
International Trade Statistics: C. D. Blyth, M.B.E., B.A.
Manufacturing Statistics: A. Cohen, B.Com.
Mining, Metallurgical and Chemical Statistics: H. McLeod.
Transportation and Public Utilities: G. S. Wrong, B.Sc.

Canadian Wheat Board:—

Chief Commissioner: George G. McIvor.
Assistant Chief Commissioner: W. C. McNamara.
Commissioner: F. L. M. Arnold.

CANADIAN GOVERNMENT TRADE COMMISSIONERS

In posts where Canada maintains Diplomatic missions, Trade Commissioners use a diplomatic title such as Commercial Counsellor, Commercial Secretary, etc.

Cable Address:—**Canadian,** unless otherwise shown.

NOTE.—Bentley's Second Phrase Code is used by Canadian Trade Commissioners.

ARGENTINA

Buenos Aires—H. L. Brown, Commercial Secretary, Canadian Embassy, Bartolomé Mitre 478.

Territory includes Uruguay and Paraguay.

Buenos Aires—W. B. McCullough, Commercial Secretary (Agricultural Specialist), Canadian Embassy, Bartolomé Mitre 478.

AUSTRALIA

Sydney—C. M. Croft, Commercial Counsellor for Canada, City Mutual Life Building, Hunter and Bligh Streets. Address for letters: Post Office Box 3952V.

Territory includes the Australian Capitol Territory, New South Wales, Queensland, Northern Territory and Dependencies.

Sydney—Dr. W. C. Hopper, Commercial Secretary for Canada (Agricultural Specialist), City Mutual Building. Hunter and Bligh Streets. Address for letters: Post Office Box 3952V.

Melbourne—F. W. Fraser, Commercial Secretary for Canada, 83 William Street.

Territory includes States of Victoria, South Australia, Western Australia, and Tasmania.

BELGIAN CONGO

Leopoldville—L. H. Ausman, Canadian Government Trade Commissioner, Forescom Building. Address for letters: Boîte Postale 373.

Territory includes Angola and French Equitorial Africa.

BELGIUM

Brussels—B. A. Macdonald, Commercial Secretary, Canadian Embassy, 46 rue Montoyer.

BRAZIL

Rio de Janerio—Maurice Bélanger, Commercial Secretary, Canadian Embassy, Ed. Metrópole, Avenida Presidente Wilson 165. Address for letters: Caixa Postal 2164.

São Paulo—J. C. Depocas, Canadian Government Trade Commissioner, Canadian Consulate, Edificio Alois, Rua 7 de Abril 252. Address for letters: Caixa Postal 6034.

CHILE

Santiago—E. H. Maguire. Acting Commercial Secretary, Canadian Embassy, Bank of London and South American Building. Address for letters: Casilla 771.

Territory includes Bolivia.

CHINA

Shanghai—L. M. Cosgrave, Commercial Counsellor for Canada, 27 The Bund. Postal District (0).

COLUMBIA

Bogota—H. W. Richardson, Acting Canadian Government Trade Commissioner, Edificio Colombiana de Seguros. Address for letters: Apartado 1618. Address for air mail: Apartado Aereo 3562.

Territory includes Republic of Panama and the Canal Zone.

CUBA

Havana—Office of the Commercial Secretary, Canadian Legation, Avenida de las Misiones 17. Address for letters: Apartado 1945.

Territory includes Haiti, Dominican Republic and Puerto Rico.

EGYPT

Cairo—J. M. Boyer, Canadian Government Trade Commissioner, 22, Sharia Kasr el Nil. Address for letters: Post Office Box 1770.

Territory includes the Sudan, Palestine, Cyprus, Iraq, Syria and Iran.

FRANCE

Paris—J. P. Manion, Commercial Secretary, Canadian Embassy, 3 rue Scribe.

Territory includes Algeria, French Morocco and Tunisia.

Paris—J. H. Tremblay, Commercial Secretary (Agricultural Specialist), Canadian Embassy, 3 rue Scribe.

Territory includes Belgium, Denmark, France and the Netherlands.

GERMANY

Frankfurt—B. J. Bachand, Canadian Economic Representative, Canadian Consulate, Economic Section, 145 Fuerstenbergerstrasse. Frankfurt am Main, A.P.O. 757, U.S. Army.

Cable address: Canadian Frankfurt/Main.

GREECE

Athens—T. J. Monty, Commercial Secretary, Canadian Embassy, 31 Vassilissis Sophias Avenue.

Territory includes Turkey.

GUATEMALA

Guatemala City—C. B. Birkett, Canadian Government Trade Commissioner, Post Office Box 400.

Territory includes Costa Rica, El Salvador, Honduras and Nicaragua.

HONG KONG

Hong Kong—K. F. Noble, Canadian Government Trade Commissioner, Hong Kong Bank Building. Address for letters: Post Office Box 126.

Territory includes South China, the Philippine Islands and French Indo-China.

INDIA

New Delhi—Richard Grew, Commercial Secretary, Office of the High Commissioner for Canada, Post Office Box 114.

Bombay—C. R. Gallow, Commercial Secretary for Canada, Gresham Assurance House, Mint Road. Address for letters: Post Office Box 886.

Territory includes Burma and Ceylon.

IRELAND

Dublin—H. L. E. Priestman, Commercial Secretary for Canada, 66 Upper O'Connell Street.

Belfast—H. L. E. Priestman, Canadian Government Trade Commissioner, 36 Victoria Square.

ITALY

Rome—R. G. C. Smith, Commercial Secretary, Canadian Embassy, Via Saverio Mercadante 15-17.

Territory includes Malta, Yugoslavia and Libya.

JAMAICA

Kingston—R. V. N. Gordon, Acting Canadian Government Trade Commissioner, Canadian Bank of Commerce Chambers. Address for letters: Post Office Box 225.

Territory includes the Bahamas and British Honduras.

MEXICO

Mexico City—D. S. Cole, Commercial Counsellor, Canadian Embassy, Edificio Internacional, Paseo de la Reforma. Address for letters: Apartado Num. 126-Bis.

NETHERLANDS

The Hague—J. A. Langley, Commercial Counsellor, Canadian Embassy, Sophialaan 1-A.

NEWFOUNDLAND

St. John's—R. Campbell Smith, Commercial Secretary, Office of the High Commissioner for Canada, Circular Road.

NEW ZEALAND

Wellington—P. V. McLane, Commercial Secretary, Office of the High Commissioner for Canada, Post Office Box 1660.

Territory includes Fiji and Western Samoa.

NORWAY

Oslo—S. G. MacDonald, Commercial Secretary, Canadian Legation, Fridtjof Nansens Plass 5.

Territory includes Denmark and Greenland.

PAKISTAN

Karachi—G. A. Browne, Acting Canadian Government Trade Commissioner, The Cotton Exchange, McLeod Road. Address for letters: Post Office Box 531.

Territory includes Afghanistan.

PERU

Lima—C. J. Van Tighem, Commercial Secretary, Canadian Embassy, Edificio Boza, Carabaya 831, Plaza San Martin. Address for letters: Casilla 1212.

Territory includes Ecuador.

PORTUGAL

Lisbon—L. S. Glass, Canadian Government Trade Commissioner, Canadian Consulate General, Rua Rodrigo da Fonseca 103.

Territory includes the Azores and Madeira, Spain, Spanish Morocco, the Canary Islands and Gibraltar.

SINGAPORE

Singapore—Paul Sykes, Canadian Government Trade Commissioner, Room D-2, Union Building. Address for letters: Post Office Box 845.

Territory includes Federation of Malaya, North Borneo, Brunei, Sarawak, Siam and Netherlands East Indies.

SOUTH AFRICA

Johannesburg—S. V. Allen, Commercial Secretary for Canada, Mutual Buildings, Harrison Street. Address for letters: Post Office Box 715.

Territory includes Transvaal, Natal, Southern Rhodesia, Northern Rhodesia, Mozambique or Portuguese East Africa, Kenya, Nyasaland, Tanganyika and Uganda.

Cable address: Cantracom.

Cape Town—S. G. Tregaskes, Acting Commercial Secretary for Canada, New South African Mutual Buildings

21, Parliament Street. Address for letters: Post Office Box 683.

Territory includes Cape Province, Orange Free State, South-West Africa, Mauritius and Madagascar.

Cable address: Cantracom.

SWEDEN

Stockholm—F. H. Palmer, Commercial Counsellor, Canadian Legation, Strandvägen 7-C. Address for letters: Post Office Box 14042.

Territory includes Finland.

SWITZERLAND

Berne—Yves Lamontagne, Commercial Counsellor, Canadian Legation, Thunstrasse 95.

Territory includes Austria, Czechoslovakia and Hungary.

TRINIDAD

Port-of-Spain—A. W. Evans, Acting Canadian Government Trade Commissioner, Colonial Life Insurance Building. Address for letters: Post Office Box 125.

Territory includes Barbados, Windward and Leeward Islands, British Guiana, Dutch Guiana, French Guiana, and the French West Indies.

UNITED KINGDOM

London—A. E. Bryan, Commercial Counsellor, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Cable address: Sleighing, London.

London—R. P. Bower, Commercial Secretary, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Territory includes the South of England, East Anglia and British West Africa (Gold Coast, Sierra Leone and Nigeria).

Cable address: Sleighing, London.

London—W. B. Gornall, Commercial Secretary (Agricultural Specialist), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Cable address: Cantracom, London.

London—R. D. Roe, Commercial Secretary (Timber Specialist), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, S.W.1.

Cable address: Timcom, London.

Liverpool—M. J. Vechsler, Canadian Government Trade Commissioner, Martins Bank Building, Water Street.

Territory includes the Midlands, North of England and Wales.

Glasgow—J. L. Mutter, Canadian Government Trade Commissioner, 200, St. Vincent Street.

Territory covers Scotland and Iceland.

Cable address: Cantracom.

UNITED STATES

Washington—J. H. English, Commercial Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W.

Washington—G. R. Paterson, Agricultural Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W.

New York City—M. T. Stewart, Canadian Government Trade Commissioner, British Empire Building, Rockefeller Centre.

Territory includes Bermuda.

Cable address: Cantracom.

Boston—T. F. M. Newton, Consul of Canada, 532 Little Building, 80, Boylston Street, Boston 16.

Detroit—J. H. Hurley, Consul of Canada, Canadian Consulate, 1035 Penobscot Building, Detroit, 26, Michigan.

Chicago—Edmond Turcotte, Consul-General of Canada, Suite 800, Chicago Daily News Building, 400, West Madison Street.

Los Angeles—V. E. Duclos, Canadian Government Trade Commissioner, Associated Realty Building, 510, West Sixth Street.

San Francisco—Harry A. Scott, Consul-General of Canada, 3rd floor, Kohl Building, 400, Montgomery Street, San Francisco.

VENEZUELA

Caracas—C. S. Bissett, Canadian Government Trade Commissioner. Address for letters: Canadian Consulate General, 8° Piso, Edificio America, Esq. Veroes.

Territory includes Netherlands West Indies.

Department of Transport

Minister: The Honourable Lionel Chevrier, K.C.
Deputy Minister: C. P. Edwards, C.M.G., O.B.E.
Director (Acting), of Marine Services: H. V. Anderson, O.B.E.
Director of Air Services: A/V/M/, A.T.N. Cowley, C.B.E.

Air Services Civil Aviation Division:—

Controller: A. D. McLean, O.B.E.
Superintendent of Airways: R. Dodds, O.B.E.

Lighthouse Board of Canada:—

Chairman: C. P. Edwards, C.M.G., O.B.E.
Members: H. V. Anderson, O.B.E., Director of Marine Services; Norman Wilson, Chief of Aids to Navigation; F. S. Jones, Chief Engineer, St. Lawrence Ship Channel; Captain J. W. Kerr, M.B.E., Supervisor of National Services; R. T. Fraser, Chief Hydrographer, Mines and Resources.

Board of Transport Commissioners:—

Chief Commissioner: Col. J. A. Cross, D.S.O., K.C.

National Harbours Board:—

Chairman: R. K. Smith, K.C.
Vice Chairman: J. E. St. Laurent, C.M.G.
Member: B. J. Roberts, O.B.E.

Department of Veterans' Affairs

Minister: The Honourable Milton Fowler Gregg, V.C.
Deputy Minister: Walter S. Woods, C.M.G., LL.D.
Assistant Deputy Minister: Major-General E. L. Burns, D.S.O., O.B.E., M.C.

Department of National Defence

Minister of National Defence: The Honourable Brooke Claxton, K.C.
Deputy Minister: W. Gordon Mills, C.M.G.
Associate Deputy Ministers: A. Ross, C.M.G.; Paul Mathieu, D.S.O., E.D.
Assistant Deputy Ministers: James A. Shappe, O.B.E.; Alan B. Coulter, O.B.E.; Basil B. Campbell, O.B.E.

Defence Council:—

Chairman: The Minister of National Defence.
Members: The Parliamentary Assistant to the Minister of National Defence; The Deputy Minister of National Defence; The Chief of the Naval Staff; The Chief the the General Staff; The Chief of the Air Staff; The Director General of Defence Research; The Associate Deputy Ministers of National Defence.

ROYAL CANADIAN MOUNTED POLICE

Hon. Commissioner: His Majesty King George VI.
Commissioner: S. T. Wood, C.M.G.
Special Official and Consultant: F. J. Mead, C.B.E.
Departmental Secretary: G. T. Hann, M.B.E.
Adjutant: Inspector J. F. Thrasher.
Assistant Adjutant: S/Inspector R. A. S. MacNeil, O.B.E.

BOARDS OF COMMISSIONERS OF POLICE

There are Police Commissions in the following places:

Barrie
Belleville
Brantford
Brockville
Chatham
Cornwall Township
Eastview
East York Township
Etobicoke
Fort Erie
Fort Frances
Fort William
Galt and Preston
Guelph
Hamilton
Hespeler
Kingston
Kitchener
Listowell
London
Mimico
Nepean
Niagara Falls
North Bay
Ottawa
Owen Sound
Pembroke
Peterboro
Picton
Port Arthur
Scarboro Township
St. Catherines
St. Thomas
Sarnia
Sault Ste. Marie
Smith's Falls
Stratford
Sudbury
Teck Township
Timmins
Toronto
Trenton
Welland
Windsor
Woodstock
York County
York Township

PROVINCIAL POLICE

Ontario

Commissioner: W. H. Stringer, O.B.E.
Deputy Commissioner: W. C. Killing.
Secretary of the Provincial Police: N. Phelps
Chief Inspector, Criminal Investigation Branch: Albert H. Ward.

Quebec

(Montreal):—
Commissioner: J. P. Lamarche, K.C.

(Quebec):
Asst. Commissioner: Lt.-Col. Léon Lambert.

PROVINCIAL ADMINISTRATION

Alberta

Lieutenant-Governor: The Honourable John Campbell Bowen
Premier and Provincial Treasurer: Hon. Ernest C. Manning.
Attorney General: Hon. Lucien Maynard.
Minister of Education: Hon. Ivan Casey
Minister of Lands and Mines: Hon. Nathan E. Tanner.
Minister of Public Works and Minister of Railways and Telephones: Hon. D. B. MacMillan.
Minister of Health and Minister of Public Welfare: Hon. W. W. Cross, M.D.
Minister of Economic Affairs: Hon. Alfred J. Hooke.
Minister of Municipal Affairs and Provincial Secretary: Hon. C. E. Gerhart.
Minister of Agriculture: Hon. D. A. Ure.
Minister of Industries and Labour: Hon. J. L. Robinson.

MEMBERS OF LEGISLATIVE ASSEMBLY

Speaker: Hon. Peter Dawson

Electoral Division	*Name of Member*
Acadia Coronation	Hon. C. E. Gerhardt.
Alexandra	S. A. Berg.
Athabaska	Gordon Lee.
Banff Cochrane	Arthur Wray.
Beaver River	Hon. L. Maynard.
Bow Valley Empress	W. E. Cain.
Bruce	Dr. J. L. McPherson.
Calgary	Fred Anderson.
	A. Davison.
	A. J. E. Liesemer.
	H. B. Macdonald.
	Mrs. Rose Wilkinson.
Camrose	C. I. Sayers.
Cardston	Hon. N. E. Tanner.
Clover Bar	F. M. Baker.
Cypress	Mrs. E. B. Thurston.
Didsbury	H. G. Hammell.
Drumheller	G. E. Taylor.
Edmonton	N. B. James.
	Hon. E. C. Manning.
	J. Percy Page.
	Elmer E. Roper.
	W. J. Williams.
Edson	N. A. Willmore.
Gleichen	G. E. Bell.
Grande Prairie	Ira McLaughlin.
Grouard	Hon. W. A. Fallow.
Hand Hills	Hon. Dr. W. W. Cross.
Lacombe	Hon. D. B. MacMillan.
Lac Ste. Anne	A. V. Bourcier.
Leduc	Hon. R. E. Ansley.
Lethbridge	J. C. Landeryou.
Little Bow	Hon. Peter Dawson.
Macleod	James Hartley.

Electoral Division	*Name of Member*
Medicine Hat	Dr. J. L. Robinson.
Okotoks High River	Ivan Casey.
Olds	N. E. Cook.
Peace River	Wm. F. Gilliland.
Pembina	R. D. Jorgenson.
Pincher Creek Crows Nest	E. O. Duke.
Panoka	Ora B. Moore.
Red Deer	David A. Ure.
Redwater	James M. Popil.
Rocky Mountain House	Hon. A. J. Hooke.
Sedgewick	A. E. Fee.
St. Albert	Chas. Holder.
St. Paul	J. W. Beaudry.
Spirit Rover	H. E. DeBold.
Stettler	Wm. S. Mackie.
Stony Plain	Mrs. C. R. Wood.
Taber	R. S. Lee.
Vegreville	Michael Ponich.
Vermilion	W. R. Cornish.
Wainwright	William Masson.
Warner	L. C. Halmrast.
Wetaskiwin	Rev. J. A. Wingblade.
Willingdon	William Tomyn.

Chief Departmental Officers:—

Deputy Attorney-General: H. J. Wilson, K.C.

King's Proctor and Collector of Succession Duties: H. J. Wilson, K.C.

Deputy Provincial Secretary: R. C. Arthurs, M.B.E., M.C.

Provincial Auditor: C. K. Huckvale.

British Columbia

Lieutenant-Governor: Colonel the Honourable Charles Arthur Banks, C.M.G.

EXECUTIVE COUNCIL

Premier and President of the Council: The Honourable Byron Ingemar Johnson, M.B.E.

Provincial Secretary and Minister of Health and Welfare: The Honourable George Sharratt Pearson.

Attorney-General and Minister of Labour: The Honourable Gordon Sylvester Wismer, K.C.

Minister of Lands and Forests: The Honourable Edward Tourtellotte Kenney.

Minister of Finance: The Honourable Herbert Anscomb.

Minister of Agriculture: The Honourable Frank Putman.

Minister of Mines and Minister of Municipal Affairs: The Honourable Roderick Charles MacDonald.

Minister of Public Works: The Honourable Ernest Crawford Carson.

Minister of Railways, Minister of Trade and Industry, and Minister of Fisheries: The Honourable Leslie Harvey Eyres.

Minister of Education: The Honourable William Thomas Straith, K.C.

MEMBERS OF THE LEGISLATIVE ASSEMBLY

Speaker: The Honourable Robert Henry Carson

Electoral Division	*Name of Member*
Alberni	James Mowat.
Atlin	William Duncan Smith.
Burnaby	Ernest E. Winch.
Cariboo	Walter Hogg.
Chilliwack	Hon. Leslie Harvey Eyres.
Columbia	Thomas King.
Comox	Herbert John Welch.
Cowichan-Newcastle	Samuel Guthrie.
Cranbrook	Frank W. Green, M.D., C.M.
Delta	Alexander Campbell Hope.
Dewdney	Hon. Roderick C. MacDonald.
Esquimalt	Charles T. Beard.
Fernie	Thomas Uphill.
Fort George	John McInnis.
Grand Forks-Greenwood	Thomas A. Love.
Kamloops	Hon. Robert H. Carson.
Kaslo-Slocan	Randolph Harding.
Lillooet	Hon. Ernest Crawford Carson.
Mackenzie	Herbert Gargrave.
Nanaimo and the Islands	Hon. George Sharratt Pearson.
Nelson-Creston	Hon. Frank Putnam.
New Westminster	Hon. Byron Ingemar Johnson, M.B.E.
N. Okanagan	William Charles Morrow.
N. Vancouver	John Henry Cates.
Omineca	Edward Fraser Rowland.
Peace River	Joseph Hardcastle Corsbie.
Prince Rupert	William Henry Brett.
Revelstoke	William James Johnson.
Rossland-Trail	James Quinn.
Saanich	Arthur J. R. Ash.
Salmon Arm	Arthur Brown Ritchie.
Similkameen	Reginald R. Laird, M.D., C.M.
Skeena	Hon. Edward T. Skeena.
S. Okanagan	Robert Browne-Clayton.
Vancouver-Burrard	Donald Cameron Brown. George Moir Weir, M.A., D.Paed.
Vancouver Centre	Allan James McDonnell. Hon. Gordon S. Wismer, K.C.
Vancouver East	Arthur James Turner. Harold E. Winch.
Vancouver Point Grey	Albert Reginald Mac Dougall. Leigh Forbes Stevenson.
Victoria City	John Hart, LL.D. Mrs. Nancy Hodges. Hon. William Thomas Straith, K.C.
Yale	John Joseph Gillis, M.D., C.M.

Manitoba

Lieutenant-Governor: The Honourable Roland Fairbairn McWilliams, K.C.

Premier, President of the Council and Minister of Dominion-Provincial Relations: Hon. Douglas L. Campbell.

Minister of Agriculture and Immigration: Hon. D. L. Campbell.

Minister of Education: Hon. John C. Dryden.

Minister of Mines and Natural Resources, and Minister of Industry and Commerce: Hon. J. S. McDiarmid.

Provincial Secretary: Hon. C. E. Greenlay.

Provincial Treasurer: Data not available at time of going to press.
Municipal Commissioner: Hon. W. Morton.
Minister of Telephones and Telegraphs: Hon. W. Morton.
Minister of Public Works: Hon. E. F. Willis.
Minister of Health and Public Welfare: Hon. Ivan Schultz, K.C.
Attorney-General: Hon. J. O. McLenaghen, K.C.
Minister of Labour: Hon. C. Rhodes Smith.
Minister without portfolio: Hon. S. Marcoux.

MEMBERS OF THE LEGISLATIVE ASSEMBLY

Speaker: Hon. Robert Hawkins.

Electoral Division	*Name of Member*
Arthur	John R. Pitt.
Assiniboia	E. R. Draffin.
Beautiful Plains	Dr. J. S. Poole.
Birtle	F. C. Bell.
Brandon City	Leslie H. McDorman.
Carillon	Edmond Prefontaine.
Cypress	James Lyall Christie.
Dauphin	Robert Hawkins
Deloraine	James O. Argue.
Dufferin	Earl T. Collins.
Emerson	John R. Solomon.
Ethelbert	M. M. Sawchuk.
Fairford	Hon. S. S. Garson, K.C.
Fisher	N. V. Bachynsky.
Gilbert Plains	Dr. S. W. Fox.
Gimli	Dr. S. O. Thompson.
Gladstone	Hon. Wm. Morton.
Glenwood	Gilbert H. Grant.
Hamiota	N. L. Turnbull.
Iberville	John McDowell.
Kildonan and St. Andrews	Hon. Jas. McLenaghen.
Killarney	Abram W. Harrison.
Lakeside	Hon. Douglas L. Campbell.
Lansdowne	Matthew R. Sutherland.
La Verandrye	Hon. Sauveur Marcoux.
Manitou	Hugh B. Marrison.
Minnedosa	Dr. Earl James Rutledge.
Morden and Rhineland	Wallace C. Miller.
Morris	Hon. J. C. Dryden.
Mountain	Hon. Ivan Schultz.
Norfolk	John Lawrie.
Portage la Prairie	Hon. Chas. E. Greenlay.
Roblin	Ronald Robertson.
Rockwood	William J. Campbell.
Rupert's Land	D. R. Hamilton.
Russell	W. W. W. Wilson.
St. Boniface	Edwin A. Hansford.
St. Clements	Wilbert Doneleyko
St. George	Christian Halldorson.
Ste. Rose	D. M. McCarthy.
Springfield	George E. Olive.
Swan River	George P. Renouf.
The Pas	Beresford R. Richards.
Turtle Mountain	Hon. E. F. Willis.
Virden	Robert Henry Mooney.
Winnipeg	S. J. Farmer.
	M. A. Gray.
	William A. Kardash.
	Hon. J. S. McDiarmid.
	C. Rhodes Smith.
	Wm. J. Scraba
	Lloyd Stinson.
	D. Swailes.
	G. S. Thorvaldson.
	Lewis St. George Stubbs.
Royal Canadian Navy	Lt.-Comdr. A. J. Stringer.
Canadian Army	Lt.-Col. Gordon M. Churchill.
Royal Canadian Air Force	W/C Ronald D. Turner.

New Brunswick

Lieutenant-Governor: David Laurence MacLaren.
Premier and Attorney-General: Hon. J. B. McNair, K.C.
Provincial Secretary-Treasurer and President of Executive Council: Hon. J. J. Hayes Doone.
Minister of Public Works: Hon. W. S. Anderson.
Minister of Lands and Mines: Hon. Richard J. Gill.
Minister of Agriculture: Hon. A. C. Taylor.
Minister of Health and Social Services: Hon. F. A. McGrand, M.D.
Minister of Labour: Hon. Samuel E. Mooers.
Minister of Education and of Federal and Municipal Relations: Hon. C. H. Blakeney.
Minister of Industry and Reconstruction: Hon. J. A. Doucet.
Minister without portfolio: Hon. J. Gaspard Boucher.

MEMBERS OF THE LEGISLATIVE ASSEMBLY

Speaker: The Hon. H. O. Downey

Electoral Division	*Name of Member*
Albert	H. O. Downey.
	A. Russell Colpitts.
Carleton	H. J. Flemming.
	G. W. Perry.
	Fred C. Squires, K.C.
Charlotte	Hon. J. J. H. Doone.
	R. Fraser Keay.
	Hugh S. Balkam.
	Owen Morse.
Gloucester	Frederick C. Young.
	Michael Fournier.
	Hon. J. A. Doucet.
	J. E. Connolly.
Kent	J. K. McKee.
	Isaac Melanson.
	Armand Richard.
King's	Dr. E. T. Kennedy.
	Hugh MacKay.
	John Woods.
Madawaska	Hon. J. G. Boucher.
	J. Hervé Proulx
Northumberland	Hon. W. S. Anderson.
	Hon. R. J. Gill.
	H. S. Murray.
	H. A. Savoie.
Queen's	Edward S. Darrah.
	H. C. Parker.
Restigouche	J. B. d'Astous.
	Hon. S. E. Mooers.
Saint John City	Laurence T. Dow.
	Ralph G. McInerney
	W. Grant Smith.
	J. Starr Tait, K.C.
Saint John Co.	Robert W. McAllister.
	E. C. Steeley.
Sunbury	Dr. G. R. Lawson.
	Hon. Dr. F. A. McGrand.

Electoral Division	*Name of Member*
Victoria	Vernon R. Briggs.
	M. F. McCluskey.
Westmorland	Hon. A. C. Taylor.
	F. H. Copp.
	Edward S. Leger.
	L. C. Dysart.
Moncton City	Hon. C. H. Blakeney.
York	Donald T. Cochrane.
	Harry A. Corey.
	Harry C. Greenlaw.
	Hon. J. B. McNair, K.C.

Senior Solicitor: H. W. Hickman.
Auditor: M. M. Hoyt.

Nova Scotia

Lieutenant-Governor J. A. D. McCurdy, M.B.E.
Premier and President of Council and Provincial Treasurer: Hon. Angus L. MacDonald, P.C., K.C.
Attorney-General and Minister of Labour: Hon. L. D. Currie, K.C.
Minister of Public Health, Minister of Public Welfare, Minister of Municipal Affairs and Registrar General: Hon. Frank Davis, M.D., C.M.
Provincial Secretary and Minister of Mines: Hon. Malcolm A. Patterson.
Minister of Agriculture and Marketing and Minister of Lands and Forests: Hon. A. W. MacKenzie.
Minister of Trade and Industry: Hon. Harold Connolly.
Minister of Highways and Public Works: Hon. Merrill D. Rawding.
Minister without portfolio: Hon. J. Willie Comeau.
Minister without portfolio: Hon. Geoffrey Stevens.

MEMBERS OF HOUSE OF ASSEMBLY

Speaker: Hon. Gordon Emerson Romkey

Electoral Division	*Name of Member*
Annapolis	H. Davis Hicks.
Antigonish	John P. Gorman.
Cape Breton South	John S. MacIvor.
Cape Breton North	Alex. O'Handley.
Cape Breton East	R. Cunningham.
Cape Breton Centre	M. McDonald.
Cape Breton West	M. A. Patterson.
Colchester	F/Lr. F. McLellan.
	G. T. Purdy.
Cumberland	K. J. Cochrane.
	M. J. Kaufman.
Digby	Hon. J. Willie Comeau.
Guysboro'	Hon. A. W. Mackenzie.
Halifax South	Hon. A. L. Macdonald.
Halifax Centre	J. E. Rutledge.
Halifax North	Hon. H. Connolly.
Halifax East	Hon. G. Stevens.
Halifax West	R. M. Fielding, K.C.
Hants	R. A. MacLellan, M.D.
Inverness	A. H. MacKinnon.
Kings	D. D. Sutton.
Lunenburg	Hon. F. R. Davis, M.D., C.M.
	Hon. G. E. Romkey.
Pictou	Hon. Josiah H. MacQuarrie, K.C.
	Lt.-Col. Alfred B. DeWolfe
Queen's	M. D. Rawding.
Richmond	Hon. L. D. Currie, K.C.
Shelburne	W. T. Dauphinee.
Victoria	John M. Campbell.
Yarmouth	H. A. Waterman.

Minimum Wage Board:—

Chairman: George A. Redmond.
Members: Mrs. F. J. Murphy; Miss Alice Hatfield; W. H. Ross; G. A. Smith; Miss Evelyn B. Spruin.

Workmen's Compensation Board:—

Chairman: F. Rowe, LL.B.
Chief Medical Officer: Dr. A. B. Campbell.

Regional War Labour Board and Wartime Labour Relations Board:—

Acting Chairman and Chief Executive Officer: A. C. Macphail.
Members: Sidney C. Mifflen; Doane Curtis; Hugh Henderson; W. S. Lee.

Nova Scotia Power Commission:—

Chairman: Hon. A. L. Macdonald, P.C., K.C., S.J.D.

Board of Commissioners of Public Utilities:—

Chairman: James A. Hanway, K.C.

Nova Scotia Land Settlement Board:—

Chairman and Supervisor: Ellsworth Lewis.
Members: C. Earl Chute; Harvey Chisholm; Thomas F. MacDonald; Angus J. MacLeod.

Chief Departmental Officers:—

Chief Engineer (Highways and Public Works): J. E. Belliveau.
Mining Engineer: J. P. Messervey.

Ontario

MEMBERS OF THE EXECUTIVE COUNCIL AS OF OCTOBER 19th, 1948

Lieutenant-Governor: Ray Lawson.
Prime Minister, President of the Council and Minister of Agriculture: Hon. Thomas Laird Kennedy.
Provincial Treasurer and Minister of Mines: Hon. Leslie Miscampbell Frost, K.C.
Attorney-General: Hon. Leslie Egerton Blackwell, K.C.
Minister without Portfolio: Hon. George Holmes Challies.
Minister of Highways and Minister of Public Works: Hon. George Henry Doucett.
Minister of Municipal Affairs and Minister of Reform Institutions: Hon. George H. Dunbar.
Minister of Labour: Hon. Charles Daley.
Minister of Education and Provincial Secretary: Hon. Dana Harris Porter, K.C.
Minister of Health: Hon. Russell Temple Kelley.
Minister of Planning and Development: Hon. George Arthur Welsh.
Minister of Public Welfare: Hon. William Arthur Goodfellow.
Minister without Portfolio: Hon. William Griesinger.
Minister of Lands and Forests: Hon. Harold R. Scott.
Minister of Travel and Publicity: Hon. Louis P. Cecile.

HOUSE OF ASSEMBLY

Speaker: Rev. M. Cooke Davies

Constituency	*Member*
Addington	John Abbott Pringle.
Algoma-Manitoulin	John A. Fullerton.
Brant	Harry Corwin Nixon.
Brantford	George Thomas Gordon.
Bruce	Kenzie Foster.
Carleton	Donald Hugo Morrow.
Cochrane North	John P. H. Carrere.
Cochrane South	William J. Grummett.
Dufferin Simcoe	Alfred Wallace Downer.
Durham	John Foote.
Elgin	Fletcher Thomas.
Essex North	Gordon Ellis.
Essex South	William Murdoch.
Fort William	Charles W. Cox.
Glengarry	Osie F. Villeneuve.
Grenville-Dundas	George H. Challies.
Grey North	MacKinnon Phillips.
Grey South	Farquhar R. Oliver.
Haldimand-Norfolk	Charles Hammond Martin.
Halton	Stanley L. Hall.
Hamilton Centre	Robert Thornberry.
Hamilton East	John Lawrence Dowling.
Hamilton-Wentworth	Russell Temple Kelley.
Hastings East	Roscoe Robson.
Hastings West	William Elmer Sandercock.
Huron	Thomas Pryde
Huron-Bruce	John W. Hanna.
Kenora	James George White.
Kent East	Edward B. McMillan.
Kent West	George W. Parry.
Kingston	Harry A. Stewart.
Lambton East	C. E. (Zeb) Janes.
Lambton West	Bryan Lewis Cathcart.
Lanark	George H. Doucett.
Leeds	Walter Bain Reynolds.
Lincoln	Charles Daley.
London	Campbell Carlyle Calder.
Middlesex North	Thomas L. Patrick.
Middlesex South	Harry M. Allen.
Muskoka-Ontario	Arthur Welsh.
Niagara Falls	William L. Houck.
Nipissing	William B. Harvey.
Northumberland	William A. Goodfellow
Ontario	Thomas D. Thomas.
Ottawa East	Aurele Chartrand.
Ottawa South	George H. Dunbar.
Oxford	Thomas R. Dent.
Parry Sound	Charles W. Cragg.
Peel	Thomas L. Kennedy.
Perth	J. Fred Edwards.
Peterborough	Harold R. Scott.
Port Arthur	Frederick O. Robinson.
Prescott	Louis Pierre Cecile.
Prince-Edward-Lennox	John Donald Baxter.
Rainy River	J. Mel Newman.
Renfrew North	Stanley Joseph Hunt.
Renfrew South	James Shannon Dempsey.
Russell	J. Daniel Nault.
Sault Ste. Marie	George I. Harvey.
Simcoe Centre	George G. Johnston.
Simcoe East	John D. McPhee.
Stormont	John Lawrence McDonald.
Sudbury	Welland Stewart Gemmell.
Timiskaming	Calvin Howard Taylor.
Victoria	Leslie M. Frost.
Waterloo North	John G. Brown.
Waterloo South	Theodore H. Isley.
Welland	Harold W. Walker.
Wellington North	Ross McEwing.
Wellington South	William E. Hamilton.
Wentworth	Joseph L. Easton.
Windsor-Sandwich	William Griesinger.
Windsor-Walkerville	M. C. Davies.
York East	Agnes Macphail.
York North	Addison A. Mackenzie.
York South	Edward B. Jolliffe.
York West	Charles H. Millard.
Toronto	
Beaches	Reid Scott.
Bellwoods	A. A. MacLeod.
Bracondale	Harry L. Walters.
Dovercourt	George E. Park.
Eglinton	Leslie E. Blackwell.
High Park	William H. Temple.
Parkdale	Lloyd Fell.
Riverdale	Leslie E. Wismar.
St. Andrew	J. B. Salsberg.
St. David	William Dennison.
St. George	Dana Porter.
St. Patrick	Charles Edward Rea.
Woodbine	Bertram E. Leavens.

Prince Edward Island

Lieutenant-Governor: Joseph A. Bernard.

President of the Executive Council, Premier, Minister of Education, and Provincial Secretary-Treasurer: Hon. J. Walter Jones.

Attorney and Advocate-General: Hon. Frederic Alfred Large, K.C.

Minister of Public Works and Highways: Hon. George H. Barbour.

Minister of Agriculture: Hon. W. F. Alan Stewart.

Minister of Health and Welfare: Hon. Alexander W. Matheson, K.C.

Minister without portfolio: Hon. Horace Wright.

Minister without portfolio: Hon. John A. Campbell.

Minister without portfolio: Hon. J. Wilfrid Arsenault.

Minister without portfolio: Hon. Harry Cox.

LEGISLATIVE ASSEMBLY

Prince County	*Councillors*	
First District	Fred C. Ramsay	Montrose.
Second District	Forest W. Phillips	Mt. Royal O'Leary, R.R.2.
Third District	Thomas M. Linkletter	Summerside.
Fourth District	Hon. Horace Wright	Bedeque.
Fifth District	Lorne H. MacFarlane	Summerside.
Queen's County		
First District	Hon. W. F. Alan Stewart	Strathgartney.
Second District	Reginald Bell	Charlottetown.
Third District	Eugene Cullen	”
Fourth District	Hon. J. Walter Jones	”
Fifth District	William J. P. MacMillan	”

King's County	*Councillors*	
First District	T. J. Kickham	Souris.
Second District	R. L. Burge	St. Peter's Bay.
Third District	Keir Clark	Montague.
Fourth District	Alex. W. Matheson	Charlottetown.
Fifth District	George E. Saville	Annandale.
Prince County	*Assemblymen*	
First District	Jos. H. Richard	Howlan.
Second District	Hon. George H. Barbour	Charlottetown.
Third District	J. W. Arsenault	"
Fourth District	C. C. Baker	Kensington.
Fifth District	Carrol W. Delaney	Summerside.
Queen's County		
First District	Fred A. Large	Charlottetown.
Second District	J. Philip Matheson	Oyster Bed Bridge.
Third District	Russell C. Clark	Mt. Stewart.
Fourth District	Dougald MacKinnon	Mt. Buchanan.
Fifth District	David L. Mathieson	Charlottetown.
King's County		
First District	John R. McLean	Souris.
Second District	Harry H. Cox	Morell.
Third District	Jos. G. Campbell	Poplar Point.
Fourth District	Hon. John A. Campbell	Heatherdale.
Fifth District	Hon. William Hughes	Souris West.

Leader of the Opposition: Dr. W. J. P. MacMillan.

Provincial Auditor: H. R. Carruthers.

Supreme Judge: Hon. Thane A. Campbell.

Quebec

Lieutenant-Governor: The Honourable Major-General Sir Eugene Fiset, K.B., C.M.G., D.S.O., M.D.
Premier, Attorney-General and President of Executive Council: Hon. Maurice L. Duplessis.
Provincial Treasurer: Hon. Onésime Gagnon.
Minister of Lands and Forests, and of Hydraulic Resources: Hon. J. S. Bourque.
Minister of Health: Hon. J. H. A. Paquette.
Minister of Social Welfare and Youth: Hon. J. M. Paul Sauvé.
Minister of Municipal Affairs: Hon. Bona Dussault.
Minister of Roads: Hon. Antonio Talbot.
Minister of Public Works: Hon. Romeo Lorrain.
Minister of Mines: Hon. Onésime Gagnon.
Minister of Colonisation: Hon. Jos. D. Bégin.
Minister of Game and Fisheries: Hon. C. E. Pouliot.
Minister of Labour: Hon. Antonio Barrette.
Minister of Trade and Commerce: Hon. Paul Beaulieu.
Minister of Agriculture: Hon. Laurent Barré.
Ministers without Portfolio: Honourable Antonio Elie; Tancrede Labbé; Marc Trudel; Patrice Tardiff; J. T. Larochelle; J. H. Delisle.

Chief Justice: Hon. Severin Letourneau.

MEMBERS OF LEGISLATIVE ASSEMBLY

Speaker: Hon. Alexandre Taché

Electoral Division	*Name of Member*
Abitibi East	Jacques Miquelon.
Abitibi West	J. A. E. Lesage.
Argenteuil	William M. Cottingham.
Arthabaska	J. A. W. Labbé.
Bagot	J. F. D. Johnson.
Beauce	J. G. O. Poulin.
Beauharnois	J. S. E. Hébert.
Bellechasse	P. E. Bélanger.
Berthier	J. A. Azellus Lavallée.
Bonaventure	Henri Jolicoeur.
Brôme	Jonathan Robinson.
Chambly	John Redmond Roche.
Champlain	Joseph Maurice Bellemare.
Charlevoix	Arthur Leclerc.
Châteauguay	Arthur Laberge.
Chicoutimi	Antonio Talbot.
Compton	Charles Daniel French.
Deux-Montagnes	J. M. P. Sauvé.
Dorchester	Joseph-Demase Bégin.
Drummond	J. R. R. Bernard.
Frontenac	J. G. P. Tardif.
Gaspé North	J. R. J. M. Levesque.
Gaspé South	Camille-Eugène Pouliot.
Gatineau	Gérard Desjardins.
Hull	Alexandre Taché.
Huntingdon	John Gillies Rennie.
Iverville	J. M. Y. Thuot.
Jacques-Cartier	Charles Aimé Kirkland.
Joliette	Antonio Barrette.
Kamouraska	Alfred Plourde.
Labelle	J. H. A. Paquette.
Lake St. John	J. J. A. Auger.
L'Assomption	V. S. Chartrand.
Laval	Joseph-Omar Barrière.
Laviolette	Charles-Romulus Ducharme.
Lévis	J. Théophile Larochelle.
l'Islet	J. C. E. Lizotte.
Lotbinière	J. R. R. Bernatchez.
Magdalen Islands	Hormisdas Langlais.
Maisonneuve	J. F. A. Gatien.
Maskinongé	A. G. Caron.
Matane	Onésime Gagnon.
Matapédia	Philippe Cossette.
Mégantic	Tancrède Labbé.
Missisquoi	Jean-Jacques Bertrand.
Montcalm	J. M. Tellier.
Montmagny	Marie-Antoine Rivard.
Montmorency	L. A. Y. Prévost.
Montreal Jeanne Mance	Georges Guèvremont.
Montreal Laurier	J. Paul Provençal.
Montreal Mercier	J. B. Gérard Thibault.
Montreal Notre-Dame-de-Grace	Paul Earle.
Montreal-Outremont	Henri Groulx.
Montreal Ste. Anne	Frank Hanley.
Montreal Ste. Marie	Francis-Aimé Gendron.
Montreal St. Henri	J. H. Delisle.
Montreal St. Jacques	Joseph Omer Côté.
Montreal St. Louis	Dave Rochon.
Montreal Verdun	Lionel A. Ross.
Napierville Laprairie	J. H. Riendeau.
Nicolet	J. E. Fleury.
Papineau	Joseph-Roméo Lorrain.
Pontiac	Raymond Johnston.
Portneuf	J. B. Dussault.
Quebec Centre	Edgar-Gérard Guay.
Quebec County	P. René Chaloult.
Quebec East	Joseph-Onésime Matte.
Quebec West	Jean-Alphonse Saucier.
Richlieu	Bernard-Julien Gagné.
Richmond	Albert Goudreau
Rimouski	J. E. A. Dubé.

Electoral Division	*Name of Member*
Riviere du Loup	Roméo Gagné.
Roberval	J. E. A. Marcotte.
Rouville	Laurent Barré.
Rouyn-Noranda	Guy Dallaire.
St. Hyacinthe	Joseph E. I. Chartier.
St. John's	J. Paul Beaulieu.
St. Maurice	J. M. Trudel.
St. Saveur	J. F. Boudreau.
Saguenay	Pierre Ouellet.
Shefford	J. H. Choquette.
Sherbrooke	John Samuel Bourque.
Stanstead	J. L. D. Gérin.
Temiscamingue	Nil-E. Larivière.
Temiscouata	André-Albert Pelletier.
Terrebonne	J. L. Blanchard.
Three Rivers	Maurice L. Duplessis.
Vaudreuil-Soulanges	J. B. Jeannotte.
Verchères	J. A. V. Arthur Dupré.
Westmount St. George	George Carlyle Marler.
Wolfe	J. J. H. Vachon.
Yamaska	J. P. A. Elie.

Saskatchewan

Lieutenant-Governor: J. M. Uhrich.
President of the Council: Hon. T. C. Douglas.
Minister of Public Health: Hon. T. C. Douglas.
Provincial Treasurer: Hon. C. M. Fines.
Attorney-General: Hon. J. W. Gorman.
Minister of Natural Resources and Industrial Development: Hon. J. W. Brockelbank.
Minister of Highways and Transportation: Hon. J. T. Douglas.
Minister of Education: Hon. W. S. Lloyd.
Minister of Social Welfare: Hon. J. H. Sturdy.
Minister of Municipal Affairs: Hon. L. F. McIntosh.
Minister of Co-operation and Co-operative Development: Hon. L. F. McIntosh.
Provincial Secretary: Hon. C. C. Williams.
Minister of Labour: Hon. C. C. Williams.
Minister of Agriculture: Hon. I. C. Nollet.
Minister of Public Works: Hon. J. A. Darling.
Minister of Telephones and Telegraphs: Hon. J. A. Darling.
Minister of Reconstruction and Rehabilitation: Hon. J. A. Darling.

MEMBERS OF THE LEGISLATIVE ASSEMBLY

Speaker: The Hon. T. Johnston.

Constituency	*Member*
Arm River	G. H. Danielson.
Athabasca	L. M. Marion.
Battlefords	P. Prince.
Bengough	A. L. S. Brown.
Biggar	W. A. Lloyd.
Cannington	W. J. Patterson.
Canora	A. G. Kuziak.
Cumberland	L. E. Blanchard.
Cut Knife	I. C. Nollet.
Elrose	M. J. Willis.
Gravelbourg	E. M. Culliton.
Gull Lake	A. Murray.
Hanley	Robert Walker.
Humboldt	A. W. Loehr.
Kelvington	P. A. Howe.
Kerrobert-Kindersley	J. Wellbelove.
Kinistino	W. C. Woods.
Last Mountain	J. Benson.
Lumsden	W. S. Thair.
Maple Creek	A. C. Cameron.
Meadow Lake	W. T. Lofts.
Melfort	J. G. Egnatoff.
Melville	P. Deshaye.
Milestone	J. W. Erb.
Moose Jaw	J. W. Corman.
Moosomin	H. McDonald.
Morse	J. Gibson.
Notukeu-Willow-Bunch	N. L. Buchanan.
Pelly	J. G. Banks
Prince Albert	L. F. McIntosh.
Qu'Appelle-Wolseley	F. M. Dundas.
Redberry	B. L. Korchinski.
Regina	C. M. Fines.
Rosetown	J. T. Douglas.
Rosthern	W. Tucker.
Saltcoat	A. A. Lopston.
Saskatoon	J. H. Sturdy.
Shellbrook	L. W. Larsen.
Souris Estevan	J. E. McCormack.
Swift Current	Harry Gibbs.
Tisdale	J. H. Brocklebank.
Torch River	John Denike.
Touchwood	Tom Johnston.
Turtleford	L. L. Trippe.
Wadena	F. A. Dewhurst.
Watrous	James A. Darling.
Weyburn	T. C. Douglas.
Wilkie	John W. Horsman.
Yorkton	A. P. Swallow.

Northwest Territories

Commissioner: Hugh L. Keenleyside, M.A., Ph.D., LL.D.
Deputy Commissioner: Roy Alexander Gibson, I.S.O.
Members of the Territorial Council: Austin Louis Cumming; Kenneth Robinson Daly; Robert Alexander Hoey; Stuart Taylor Wood.

Dominion Officials:
Director, Lands, Parks and Forests Branch: Roy Alexander Gibson, I.S.O.
Director (Acting), Mackenzie District and Northwest Territories: M. Meikle, B.Sc., D.L.S.
Director, Yukon Division: C. K. LeCapelain.
Director, Arctic: J. G. Wright, B.Sc., D.L.S.
Registrar-General of Vital Statistics: Roy A. Gibson, I.S.O.
Public Administrators: H. Milton Martin; W. M. Cory.
Sheriff: W. J. Taylor.

Yukon Territory

Controller: John Edward Gibben.
Territorial Council:
Dawson District: John R. Fraser.
Whitehorse District: R. Gordon Lee.
Mayo District: Ernest J. Corp.
Territorial Officials:
Director, Lands, Parks and Forest Branch: Roy Alexander Gibson, I.S.O.
Territorial Treasurer: P. Powell.

Superintendent of Roads and Public Buildings: C. W. Lowman.
Superintendent of Schools: Ronald Hulland.
Registrar of Vital Statistics: M. Munroe.
Territorial Assayer: W. C. Sime.

RAILWAYS IN CANADA

Algoma Central and Hudson Bay Railway

President: E. B. Barber.
Purchasing Agent: F. H. Allinson.
Traffic Manager: J. P. Mader.

Alma and Jonquiere Railway

President: W. C. Duncan.
Manager and General Auditor: T. J. Butler.

British Columbia Electric Railway

President: A. E. Graner.
Vice-Presidents: E. W. Arnott; J. L. McLean; T. M. Moran.
General Freight and Passenger Agent: W. D. Power.
Purchasing Agent: G. L. Haszard.

Canada and Gulf Terminal Railway

President: J. A. O'Brien.
Secretary-Treasurer: A. S. Clarke.
General Superintendent: T. J. Fouhy.

Canadian National Railways

President and Chairman: R. C. Vaughan.
Vice-President and Executive Assistant: M. A. Metcalf.
Director of Public Relations: W. S. Thompson.
General Passenger Traffic Manager: A. A. Gardiner.
General Freight Traffic Manager: J. Pullen.

Canadian Pacific Railway

President and Chairman: W. M. Neal.
Vice-Presidents: G. A. Walker, K.C.; L. R. Unwin; Geo. Stephen; E. A. Leslie; W. Manson; B. W. Roberts; D. I. McNeill, K.C.; N. R. Crump; W. A. Mather; G. R. Baillie.
Passenger Traffic Manager: R. G. McNeillie.
Freight Traffic Manager: C. E. Jefferson.
General Managers: D. S. Thompson; J. I. McKay.

Central Vermont Railway

General Freight Agent: W. A. Kember.
General Passenger Agent: S. C. Vaughan.
Purchasing Agent: H. M. Dewart.

Cumberland Railway and Coal Company

President: Arthur Cross.
Purchasing Agent: D. S. Hines.
General Traffic and Transportation Manager: Neil McLellan.

Dominion Atlantic Railway

President: W. Manson.
Vice-President: N. R. Crump.
Manager: A. A. Dunphy.
General Freight and Passenger Agent: A. T. Smith.

Esquimalt and Nanaimo Railway

President: G. H. Baillie.
Assistant General Manager: W. S. Hall.
District Passenger Agent: R. J. Burland.
Purchasing Agent: J. Arnott.

Essex Terminal Railway

President: A. Cross.
Vice-President and Managing Director: C. B. Lang.
General Manager: A. St. C. Ryley.
Purchasing Agent: C. D. Henderson.

Grand River Railway

President: N. R. Crump.
Manager: W. D. Thompson.
General Freight and Passenger Agent: G. L. Barber.

Greater Winnipeg Water District Railway

Chairman of Commissioners: W. M. Scott.
Superintendent: G. McFadden.

Great Northern Railway

President: F. J. Gavin.
General Freight Traffic Manager: Geo. F. Hardy.
Passenger Traffic Manager: V. J. Kenny.
Purchasing Agent: A. N. Crenshaw.

Lake Erie and Northern Railway

President: N. R. Crump.
Manager: W. D. Thompson.
General Freight and Passenger Agent: G. L. Barber.

London and Port Stanley Railway

General Manager: E. V. Buchanan.
Secretary: J. E. Richards.

Maritime Coal Railway and Power Company

General Manager: N. T. Avard.

Michigan Central Railroad

President: G. Metzman.
Purchasing Agent: F. S. Austin.
General Freight Agent: L. J. Brinkman.
General Passenger Agent: S. W. Bone.
Chief Engineer: E. A. Dougherty.

Montreal and Southern Counties Railway

General Manager: J. F. Pringle.
General Superintendent: A. J. Lomas.
Superintendent: R. Cannon.
Purchasing Agent: E. A. Bromley.

Morrisey, Fernie and Michel Railway

General Manager: T. H. Wilson.

Napierville Junction Railway

President: J. H. Nuelle.
Vice-President and Secretary: R. E. Kendrick.
General Freight and Passenger Agent: N. J. Ferguson.

New York Central Railroad Company

President: G. Metzman.
General Freight Traffic Manager: J. P. Patterson.
General Passenger Traffic Manager: F. H. Baird.
General Purchasing Agent: A. L. Prentice.

Niagara, St. Catharines and Toronto Railway

Vice President and General Manager: J. F. Pringle.
General Passenger Agent: R. C. Gadsby.
Superintendent: J. R. Empringham.

Northern Alberta Railways

President: W. M. Neal.
Vice-President: R. C. Vaughan.

General Manager: J. M. MacArthur.
Superintendent: J. E. Deakin.

Northern Pacific Railway

President: C. E. Denney.
Freight Traffic Manager: L. R. Challoner.
Passenger Manager: E. E. Nelson.
Purchasing Agent: E. M. Willis.

Ontario Northland Railway

Chairman: Col. C. E. Reynolds.
General Manager: A. Freeman.
Traffic Manager: R. P. C. McLeod.
General Freight and Passenger Agent: H. H. Phillips.
Superintendent: A. Jardine.
Purchasing Agent: G. B. Alford.

Oshawa Railway

General Manager: J. F. Pringle.
Superintendent: J. H. McDiarmid.

Pacific Great Eastern Railway

General Manager: W. H. Tobey.
Superintendent: J. W. Millar.

Pere Marquette Railroad

President: R. J. Bowman.
Vice-President: R. S. Marshall.
General Passenger Agent: R. W. Ohlman.
General Freight Agent: W. P. Lee.
Purchasing Agent: R. L. Tindal.

Quebec Central Railway

President: W. Manson.
Vice-President: N. R. Crump.
General Manager: J. N. Fraine.
General Freight and Passenger Agent: J. T. Hawkins.
Superintendent: F. H. Hibbard.

Quebec Railway, Light and Power Company

General Manager: J. N. Sicard.
Superintendent: J. A. Côté.

Roberval and Saguenay Railway

President: W. C. Duncan.
Vice-President: F. L. Parsons.
Manager: L. P. Thomason.

Sydney and Louisburg Railway

President: Arthur Cross.
General Traffic and Transportation Manager: Neil McLellan.
Purchasing Agent: D. S. Hines.
Mechanical Superintendent: J. G. Fisher.

Temiscouata Railway

President and Managing Director: C. A. Stewart.
Accountant: J. T. Lavoie.

Thousand Islands Railway

General Manager: J. F. Pringle.
General Superintendent: N. A. Walford.

Toronto, Hamilton and Buffalo Railway

President and General Manager: H. T. Malcolmson.
Vice-President: W. M. Neal.
General Freight and Passenger Agent: R. F. Hill.
Purchasing Agent: H. H. Disher.

Vancouver and Lulu Island Railway Company

President: W. A. Mather.
General Freight Agent: A. T. McKean.

Wabash Railway Company

President: A. K. Atkinson.
General Freight Traffic Manager: C. J. Sayles.
Passenger Traffic Manager: T. M. Hayes.
Purchasing Agent: K. L. Brenner.

Wellington Colliery Railway

General Offices: Cumberland, British Columbia.

White Pass and Yukon Route

President and General Manager: C. J. Rogers.
Master Mechanic: J. C. Hoyt.

Winnipeg, Selkirk and Lake Winnipeg Railway

Head Office: Winnipeg, Manitoba.

AIRLINES

Canadian Pacific Air Lines, Limited

Chairman: W. M. Neal.
President: G. W. G. McConachie.
General Manager: R. W. Ryan.

Trans-Canada Air Lines, Limited

President: H. J. Symington, K.C.
Vice-President: (Operations): W. F. English.
Vice-President (Administration): A. C. McKimm.
Toronto District Traffic Manager: J. J. Robinson.
Montreal District Traffic Manager: G. R. Wilson.

CANADIAN REPRESENTATIVES ABROAD

Place	*Designation*	*Name*
Argentina		
Buenos Aires Bartolome Mitre, 478. Tel.: 33-4018	Ambassador	W. F. Chipman, K.C.
	First Secretary	Lionel Roy.
	[1]Commercial Secretary	H. L. Brown.
	Commercial Secretary (Agricultural)	W. B. McCullough.
	Air Attaché	G/C. F. A. Sampson, O.B.E.
	Second Secretary	H. F. Davis.
	Assistant Commercial Secretary	R. E. Gravel.

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[1] Territory includes Uruguay and Paraguay.

CANADIAN REPRESENTATIVES ABROAD—*cont.*

Place	*Designation*	*Name*
Australia		
Canberra	High Commissioner	K. A. Greene, O.B.E.
State Circle. Tel.: 665	Second Secretary (Local Rank)	G. A. Rau.
	Information Officer	A. D. Ross.
Melbourne	[1]Commercial Secretary	F. W. Fraser.
83 William St.	Assistant Commercial Secretary	T. R. G. Fletcher.
Sydney	[2]Commercial Counsellor	C. M. Croft.
City Mutual Life Building, Hunter and Bligh Streets. Address for letters: Post Office Box 3952V	Assistant Commercial Secretary	M. R. M. Dale.
Belgian Congo		
Leopoldville Palace Hotel. Address for letters: Boite Postale 373	[3]Trade Commissioner	L. H. Ausman.
Belgium		
Brussels	Ambassador	Victor Doré, C.M.G.
46, rue Montoyer. Tel.: 11-33-88	Counsellor	H. Allard
	Air Attaché	W/C H. M. Kennedy, A.F.C.
	Commercial Secretary	B. A. Macdonald.
	[4]Commercial Secretary (Agricultural)	J. H. Tremblay.
	Second Secretary	J. H. Thurrott.
	Assistant Commercial Secretary	W. Gibson-Smith
	Consul	J. A. Mitchell.
	Consul	Dr. M. G. Lynch.
Brazil		
Rio de Janeiro	Ambassador	J. S. MacDonald.
Avenida President Wilson, 165, 7th Floor. Tel.: 42-4140	First Secretary	W. G. Stark.
	Commercial Secretary	M. Belanger.
	Second Secretary	J. L. Delisle.
	Assistant Commercial Secretary	T. F. Harris.
Sao Paulo Rua 7 d'Abril 252, Address for letters: Caixa Postal 6034	Consul and Trade Commissioner	J. C. Depocas
Chile		
Santiago	Ambassador	C. F. Elliott, C.M.G., K.C.
Bank of London and South America Building	[5]Acting Commercial Secretary	E. H. Maguire.
	Second Secretary	P. Tremblay.
China		
Nanking	Ambassador	Hon. T. C. Davis, K.C.
No. 3 Ping Tsang Hsiang. Tel.: 32-413	First Secretary	C. A. Ronning.
	Military Attaché	Col. F. le P. T. Clifford, O.B.E.
	Second Secretary	J. R. Maybee.
Shanghai	Commercial Counsellor	L. M. Cosgrave, D.S.O.
27, The Bund	Assistant Commercial Secretary	B. I. Rankin
	Third Secretary and Vice-Consul	F. G. Ballachey.
Colombia		
Bogota	[6]Acting Trade Commissioner	H. W. Richardson.
Edificio Colombiana de Seguros. Address for letters: Apartado 1618	Assistant Trade Commissioner	W. Van.

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[1] Territory includes States of Victoria, South Australia, West Australia and Tasmania.

[2] Territory includes the Australian Capital Territory, New South Wales, Queensland, Northern Territories and Dependencies.

[3] Territory includes Angola and French Equatorial Africa.

[4] Resident in Paris. Territory includes France, The Netherlands and Denmark.

[5] Territory includes Bolivia.

[6] Territory includes Republic of Panama and the Canal Zone.

CANADIAN REPRESENTATIVES ABROAD—*cont.*

Place	*Designation*	*Name*
Cuba		
Havana Avenida de Las Misiones No. 17. Tel.: M9839	Minister	C. P. Hébert.
	Third Secretary	T. B. B. Wainman-Wood.
	Vice-Consul	Miss B. McGregor.
Czechoslovakia		
Prague 2 Krakowska 22. Tel.: 225-48	Chargé d'Affaires a.i.	R. M. Macdonnell.
	[1]Commercial Counsellor	Y. Lamontagne.
	Air Attaché	Group-Capt. R. A. Cameron.
	Third Secretary	J. A. Irwin.
Denmark		
Copenhagen Osterbrogade 26. Tel.: Tria 1602	Minister	H. Laureys.
	[2]Commercial Secretary	S. G. MacDonald.
	[3]Commercial Secretary (Agriculture)	J. H. Tremblay.
	Second Secretary	R. Campbell, D.S.C.
	[2]Assistant Commercial Secretary	H. J. Horne.
Egypt		
Cairo 22 Shari Kasr el Nil. Address for letters: Post Office Box 1770.	[4]Trade Commissioner	J. M. Boyer.
France		
Paris xvi 72 avenue Foch. Tel.: Kleber 5735	Ambassador	Maj.-Gen. G. P. Vanier, D.S.O., M.C.
	Counsellor	C. S. A. Ritchie.
	Military Attaché	Col. D. Ménard, D.S.O.
	Air Attaché	G/C. D. M. Edwards, A.F.C.
	First Secretary	J. A. Chapdelaine.
	[5]Commercial Secretary	J. P. Manion.
	Second Secretary	P. Beaulieu.
	[6]Commercial Secretary (Agricultural)	J. H. Tremblay.
	Information Officer	F. Charpentier.
	Third Secretary	D. W. Munro.
	Assistant Commercial Secretary	J. P. C. Gauthier.
	Assistant Commercial Secretary	A. B. Brodie.
	Special Attaché	D. C. Unwin-Simpson.
	Administrative Officer	H. M. Robertson.
	Consul	O. Cormier.
	Consul	Dr. G. Audet.
Germany		
Berlin Commonwealth House, 40 Johannesberger Strasse, Wilmersdorf. Tel.: 86-4460. Address for letters: Canadian Military Mission, Berlin, B.A.O.R. 2.	Head of Mission	Lt.-Gen. Maurice Pope, C.B., M.C.
	Second Secretary	P. T. Molson.
	Administrative Officer	Captain R. C. O. O'Hagan.
Frankfurt 145 Fuerstenbergerstr., Frankfurt am Main. Address for letters: Canadian Consulate, *c/o* Political Advisor's Office, A.P.O. 757, U.S. Army, Frankfurt	Consul	A. J. Hicks.
	[7]Economic Representative	B. J. Bachand.

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[1] Resident in Berne. Territory includes Switzerland, Austria and Hungary.

[2] Resident in Paris, France. Territory includes France, Belgium, The Netherlands.

[3] Resident in Oslo. Territory includes Norway and Greenland.

[4] Territory includes the Sudan, Palestine, Cyprus, Iraq, Syria and Iran.

[5] Territory includes Algeria, Morocco and Tunisia.

[6] Territory includes Belgium, The Netherlands and Denmark.

[7] Canadian Economic Section, *c/o* Allied Contacts Section, H.Q., E.U.C.O.M., A.P.O. 575, U.S. Army Frankfurt.

CANADIAN REPRESENTATIVES ABROAD—*cont.*

Place	*Designation*	*Name*
Greece		
Athens 31, Queen Sofia Blvd. Tel.: 72-340	Ambassador	Maj.-Gen. the Hon. L. R. LaFleche, D.S.O.
	Commercial Secretary	T. J. Monty.
	Military Attaché	Col. R. P. Rothschild, M.B.E.
	Third Secretary	G. G. Riddell.
	Assistant Commercial Secretary	D. M. Holton.
Guatemala		
Guatemala City Post Office Box 400	[1]Trade Commissioner	C. B. Birkett.
Hong Kong		
Hong Kong Hong Kong Bank Building. Address for letters: Post Office Box 126	[2]Trade Commissioner	K. F. Noble.
India		
New Delhi 4 Aurangzeb Road. Tel.: 40191	High Commissioner	J. D. Kearney, K.C.
	Counsellor	S. M. Scott.
	Commercial Secretary	R. Grew.
	Second Secretary	C. C.-E. Chatillon.
Bombay Gresham Assurance House, Mint Road. Address for letters: Post Office Box 886	[3]Commercial Secretary	C. R. Gallow.
	Assistant Commercial Secretary	R. K. Thomson.
Ireland		
Dublin 92, Merrian Square West, Tel.: 62247. Commercial Office: 66 Upper O'Connell St. Tel.: 74251	High Commissioner	Hon. W. F. A. Turgeon, K.C.
	[4]Commercial Secretary	H. L. E. Priestman.
	Third Secretary	J. D. M. Weld.
Italy		
Rome Via Saverio Mercadante 15, Tel.: 80-842	Ambassador	J. Désy, K.C.
	Second Secretary	T. L. Carter, M.C.
	[5]Commercial Secretary	R. G. S. Smith.
	Assistant Commercial Secretary	A. P. Bissonnet.
	Attaché (Immigration)	J. R. Robillard.
	Attaché (Immigration)	Dr. M. J. M. LaSelle.
Japan		
Tokyo 16 Omote-Machi, 3 Chome, Minato-Ku. Tel.: 48-4238	Head of Mission	E. H. Norman.
	Counsellor	G. S. Patterson
	Commercial Representative	James C. Britton.
	Third Secretary (Local rank)	J. J. McCardle.
	Administrative Officer	F. Clarke.
Jamaica		
Kingston Canadian Bank of Commerce Chambers. Address for letters: Post Office Box 225	[6]Trade Commissioner	M. B. Palmer.
	Assistant Trade Commissioner	R. V. N. Gordon.

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[1] Territory includes Costa Rica, El Salvador, Honduras and Nicaragua.

[2] Territory includes South China, the Phillippine Islands and French Indo-China.

[3] Territory includes Burma and Ceylon.

[4] Territory includes Northern Ireland.

[5] Territory includes Malta, Libya and Yugoslavia.

[6] Territory includes the Bahamas and British Honduras.

CANADIAN REPRESENTATIVES ABROAD—*cont.*

Place	*Designation*	*Name*
Luxembourg		
c/o Canadian Embassy, 46, rue Montoyer, Brussels. Tel.: 11-33-88	Minister	Victor Doré, C.M.G.
Malayan Union		
Singapore Room D-2, Union Building. Address for letters: P.O. Box 845	[1]Trade Commissioner	Paul Sykes.
Mexico		
Mexico Edificio International Paseo de la Reforma, No. 1. Tel.: Ericsson 10-05-97.	Ambassador	S. D. Pierce, O.B.E. (*absent*).
	Commercial Counsellor and Chargé d'Affaires a.i.	D. S. Cole.
	Second Secretary	G. W. Hilborn.
	Second Secretary	G. Sicotte.
	Second Secretary	Miss B. M. Meagher.
	Assistant Commercial Secretary	W. J. Millyard.
	Information Officer	A. E. Blanchette.
Netherlands		
The Hague Sophialaan 1A. Tel.: 115-963	Ambassador	P. Dupuy, C.M.G.
	Commercial Counsellor	J. A. Langley.
	Military Attaché	Col. Herbert E. T. Doucet, O.B.E.
	First Secretary	H. F. Feaver.
	[2]Commercial Secretary (Agriculture)	J. H. Tremblay.
	Assistant Commercial Secretary	V. L. Chapin.
	Consul	C. D. Reid.
	Vice-Consul	A. O. Petersen.
Newfoundland		
St. John's Circular Road. Tel.: 2788.	High Commissioner	C. J. Burchell, K.C.
	Second Secretary	P. A. Bridle.
	Commercial Secretary	R. C. Smith.
New Zealand		
Wellington Government Life Insurance Bldg., Customs Quay. Tel.: 44-480	High Commissioner	A. Rive.
	[3]Commercial Secretary	P. V. McLane.
	Second Secretary	Miss A. M. Ireland.
	Assistant Commercial Secretary	C. M. Forsyth-Smith.
Norway		
Oslo Fridtjof Nansens Plass 5. Tel.: 333080	Minister	E. J. Garland.
	[4]Commercial Secretary	S. G. MacDonald.
	Assistant Commercial Secretary	H. J. Horne.
	Third Secretary	D. M. Cornett.
Pakistan		
Karachi Post Office Box 531	Acting Trade Commissioner	G. A. Browne.
Peru		
Lima Edificio Boza San Martin. Address for letters: Casilla 1212. Tel.: 39150	Ambassador	J. A. Strong.
	[5]Commercial Secretary	C. J. Van Tighem.
	Third Secretary	J. M. Cook.

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[1] Territory includes Singapore, North Borneo, Brunei, Sarawak, Siam, and Netherlands East Indies.

[2] Resident in Paris, France.

[3] Territory includes Fiji and Western Samoa.

[4] Territory includes Denmark and Greenland.

[5] Territory includes Ecuador.

CANADIAN REPRESENTATIVES ABROAD—*cont.*

Place	*Designation*	*Name*
Poland		
Warsaw Hotel Bristol	Chargé d'Affaires a.i.	K. P. Kirkwood.
	Second Secretary	G. P. Kidd.
	Military Attaché	Col. E. W. Cutbill, D.S.O.
Portugal		
Lisbon Rua Rodrigo Fonseca, 103-4. Tel.: 53117	[1]Acting Consul-General and Trade Commissioner	L. S. Glass.
	Assistant Trade Commissioner and Vice-Consul	L. A. Campeau.
Sweden		
Stockholm Strandvagen 7-C. Address for letters: Post Office Box 14042. Tel.: 673530	[2]Commercial Counsellor and Chargé d'Affaires a.i.	F. H. Palmer.
	Air Attaché	G/C. H. G. Richards.
	Assistant Commercial Secretary	D. B. Mundy.
	Third Secretary	J. D. Foote.
Switzerland		
Berne Thunstrasse 95	Minister	L. D. Wilgress.
	Counsellor	P. E. Renaud.
	[3]Commercial Counsellor	Y. Lamontagne.
	Second Secretary	L. A. D. Stephens.
Trinidad		
Port-of-Spain Colonial Life Insurance Building. Address for letters: Post Office Box 125	[4]Trade Commissioner	T. G. Major.
	Assistant Trade Commissioner	A. W. Evans.
Turkey		
Ankara 211, Ayranci Baclari, Kavaklidere. Tel.: 21990	Ambassador	Maj.-Gen. V. W. Odlum, C.B., C.M.G., D.S.O.
	Acting Commercial Secretary	G. F. G. Hughes.
	Third Secretary	G. E. Cox.
Union of South Africa		
Pretoria 24 Barclays Bank Building, Church Square. Tel.: 2-4718	High Commissioner	E. D. McGreer.
	Third Secretary	J. E. Thibault.
Cape Town South African Mutual Building, 21 Parliament St., Post Office Box 683. Tel.: 2-5134	[5]Acting Commercial Secretary	S. G. Tregaskes.
Johannesburg Mutual Buildings, 39 Harrison Street. Address for letters: Post Office Box 715. Tel.: 33-7558	[6]Commercial Secretary	S. V. Allen.
	Assistant Commercial Secretary	D. S. Armstrong.
	Assistant Commercial Secretary	F. T. Cook.
Union of Soviet Socialist Republics		
Moscow 23 Starokonyushny Pereulok. Tel.: 415142	Ambassador	
	Chargé d'Affaires a.i.	John B.C Watkins.
	Air Attaché	G/C. L. H. Randall, D.F.C.
	Second Secretary	R. A. J. Phillips.

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[1] Commercial Territory includes the Azores and Madeira, Spain, Spanish Morocco, the Canary Islands and Gibraltar.

[2] Territory includes Finland.

[3] Territory includes Czechoslovakia, Austria and Hungary.

[4] Territory includes Barbados, Windward and Leeward Islands, British Guiana, Dutch Guiana, French Guiana, and the French West Indies.

[5] Territory includes Cape Province, Orange Free State, South-West Africa, Mauritius and Madagascar.

[6] Territory includes Transvaal, Natal, Southern Rhodesia, Northern Rhodesia, Mozambique or Portuguese East Africa, Nyasaland, Kenya, Uganda and Tanganyika.

CANADIAN REPRESENTATIVES ABROAD—*cont.*

Place	*Designation*	*Name*
United Kingdom of Great Britain and Northern Ireland		
London, England Canada House, Trafalgar Square, Tel.: Whitehall 9741	High Commissioner	N. A. Robertson.
	Official Secretary	F. Hudd, C.B.E.
	Counsellor	M. H. Wershof.
	Commercial Counsellor	A. E. Bryan.
	Agricultural Counsellor	J. G. Robertson.
	Joint Liaison Officers	Air Vice-Marshal R. E. McBurney, C.B.E. Commodore A. M. Hope, R.C.N., O.B.E. Brigadier E. C. Plow, C.B.E., D.S.O.
	Information Officer	C. Moodie.
	First Secretary	J. Leger.
	First Secretary	A. E. Ritchie.
	First Secretary	R. A. D. Ford.
	Commercial Secretary (Agricultural)	W. B. Gornall
	Commercial Secretary (Timber Specialist)	R. D. Roe, O.B.E.
	[1]Commercial Secretary	R. P. Bower.
	Second Secretary	J. H. Warren.
	Commercial Secretary (Agricultural)	R. W. Blake.
	Scientific Adviser	J. G. Malloch.
	Immigration Adviser	G. Congdon.
	Assistant Commercial Secretary	J. E. Lancaster.
	Administrative Officer	J. P. Sigvaldason.
Liverpool Martins Bank Building, Water St.	[2]Trade Commissioner	M. J. Vechsler.
	Assistant Trade Commissioner	A. A. Caron.
Glasgow 36, Victoria Square.	[3]Trade Commissioner	J. L. Mutter.
Belfast 200, St. Vincent St.	[4]Trade Commissioner	H. L. E. Priestman.
United Nations		
The Permanent Delegation of Canada to the United Nations		
New York 20, N.Y. Room 3320, 630 Fifth Avenue. Tel.: Columbus 5-3680	Permanent Delegate	Gen. The Hon. A. G. L. McNaughton, C.H., C.B., C.M.G., D.S.O.
	Principal Adviser	G. Ignatieff.
	Advisers	J. D. Babbitt. H. H. Carter. G. K. Grande. J. H. C. Lewis. J. K. Starnes.
	Administrative Officer	S. G. Lefeuvre.
The Permanent Representation of Canada to the European Centre of the United Nations		
Geneva	[5]Permanent Representative	L. D. Wilgress.
	[5]Permanent Deputy Representative	P. E. Renaud.
	Secretary	N. F. H. Berlis.
United States of America		
Washington, 6, D.C. 1746 Massachusetts Avenue, N.W. Tel.: Decatur 1011	Ambassador	H. H. Wrong.
	Minister	T. A. Stone.
	Counsellor	G. L. Magann.

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[1] Territory includes the South of England, East Anglia and British West Africa (Gold Coast, Sierra Leone and Nigeria).

[2] Territory includes the Midlands, North of England and Wales.

[3] Territory covers Scotland.

[4] Resident in Dublin.

[5] Resident in Berne.

CANADIAN REPRESENTATIVES ABROAD—*cont.*

Place	*Designation*	*Name*
United States of America—*cont.*		
	Commercial Counsellor	J. H. English.
	Counsellor (Financial)	J. F. Parkinson.
	Counsellor (Agricultural)	G. R. Paterson.
	Naval Attaché	Commodore V. S. Godfrey.
	Military Attaché	Brigadier H. E. Taber, C.B.E.
	Air Attaché	Air Commodore R. C. Gordon.
	Assistant Naval Attaché	Commander F. J. D. Pemberton.
	Assistant Military Attaché	Colonel L. G. Clarke, O.B.E.
	Assistant Air Attaché	Wing-Commander L. J. Birchall.
	Second Secretary	R. E. Collins.
	Second Secretary	S. D. Wheelock.
	Second Secretary	J. R. Murray.
	Information Officer	P. Malone.
	Second Secretary	R. M. Keith.
	Second Secretary	R. Frigon.
	Second Secretary	J. J. M. Côté.
	Information Officer	R. W. A. Dunn.
	Counsul and Administrative Officer	L. W. L. H. LaVigne.
	Third Secretary	R. L. Rogers.
	Assistant Commercial Secretary	D. W. Jackson.
	Assistant Commercial Secretary	W. D. Wallace.
Boston, 16, Mass.	Consul	T. F. M. Newton.
532 Little Building, 80, Boylston Street.	Vice-Consul	F. M. Meech
Chicago	Consul-General	E. Turcotte.
Suite 800, Daily News Building, 400 West, Madison Avenue. Tel.: State 2-7312	Consul	B. G. Sivertz, O.B.E.
	Vice-Consul	C. H. West.
	Vice-Consul	O. W. Dier.
Detroit, 26, Mich.	Consul	James J. Hurley.
1035, Penobscot Bldg. Tel.: Woodward 5-2811	Vice-Consul	George F. Power.
Los Angeles	Trade Commissioner	V. E. Duclos.
Associated Realty Building, 510 West Sixth Street		
New York, N.Y.	Consul-General	H. D. Scully.
620 Fifth Avenue. Tel.: Columbus 5-3680	Consul	Miss K. A. McCloskey.
	Consul and Trade Commissioner	M. T. Stewart.
	Vice-Consul and Assistant Trade Commissioner	H. E. Campbell.
	Vice-Consul	A. E. L. Cannon.
	Information Officer	S. A. Freifeld.
	Information Officer	B. A. Keith.
Portland, Maine	Honorary Vice-Consul	A. Lafleur.
Office 503, 120 Exchange Street		
San Francisco, 4, Cal.	Consul-General	Harry A. Scott.
Kohl Building, 400 Montgomery Street	Consul	C. N. Senior.
Venezuela		
Caracas	[1]Acting Consul-General and Trade Commissioner	C. S. Bissett.
No. 805 Edificio America, Esquina Veroes	Vice-Consul and Assistant Trade Commissioner	J. A. Stiles.
Yugoslavia		
Belgrade	Minister	E. Vaillancourt.
Garasaninovaso. Tel.: 25-098	[2]Commercial Secretary	R. G. C. Smith.
	Military Attaché	Lt.-Col. R. E. Hogarth, D.S.O.
	Second Secretary	J. A. McCordick.

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[1] Territory includes Netherlands West Indies.

[2] Territory includes Malta and Libya, Resident in Rome, Italy.

BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA

Place	*Designation*	*Name*
Argentina		
Ottawa, Ontario 18 Rideau Street. Tel.: 3-7582	Ambassador	His Excellency Dr. Juan Carlos Rodriguez.
	Counsellor	Erasto M. Villa.
	First Secretary	Dr. Wifredo Brunet.
	Naval Attaché	Commander Oscar J. Román Rumbo (Nominated).
	Third Secretary	Carlos Guillermo O'Grady.
	Attaché	Germán J. de Laferrère.
	Attaché	Juan Bernardo Guilhauman.
	Cultural Attaché	Raul A. Buccino.
	Press Attaché	J. S. Macias Texier (Nominated).
Montreal, P.Q. 1111 Beaver Hall Hill. Tel.: Harbour 9068	Consul-General	Pedro Bonnefón.
	Vice-Consul	Guillermo F. Mejia.
Quebec, P.Q... 78 Moncton Avenue	Consul	Julio A. Troisi.
Vancouver, B.C. 325 Howe Street	Consul	Manuel Lezica.
Australia		
Ottawa, Ontario 24 Sussex Street. Tel.: 5-6717	High Commissioner	Rt. Hon. F. M. Forde, P.C.
	Official Secretary	Stewart Jamieson.
	Assistant Official Secretary	L. J. Lawrey.
	Press Attaché	T. Dunbabin.
Ottawa, Ontario 24 Sussex Street. Tel. : 5–6717	Trade Commissioner	C. J. Carne.
Vancouver, B.C. Tel.: Tatlow 1177	Trade Commissioner	F. R. Gullick.
Belgium		
Ottawa, Ontario 395 Laurier Avenue East. Tel.: 4-2060	Ambassador	His Excellency A. Paternotte de la Vaillée.
	Counsellor	Louis Couvreur.
	Military and Air Attaché	Major Jean Ducq.
	Civil Air Attaché	Lt. Col. J. Verhaegen.
	Agricultural Attaché	R. Coustry.
Edmonton, Alta. 10814-73rd Avenue	Consul	*M. Polet.
Halifax, N.S. P.O. Box 52	Consul	*A. N. Jones.
London, Ontario	Consular Agent	*G. Legon.
Montreal, P.Q. 709 Sun Life Building. Tel.: Plateau 8375	Consul-General	Jean Querton.
	Vice-Consul	Frans Willems.
	Commercial Secretary	Marcel Kittel.
Ottawa, Ontario	Consul	*A. Major.
Prince Rupert, B.C.	Vice-Consul	*T. Collart.
Quebec, P.Q... 20 Raymond Casgrain Street	Consul	*M. Koetz.
Saint John, N.B. 108 Prince William Street	Consul	*R. G. McInerney.
Sydney, N.S... *c/o* Dominion Steel Coal Corporation	Vice-Consul	*E. I. Martheleur.

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* Consular officers who are *not* officers of career or citizens of the country they represent or who are engaged in business or profession other than their consular duties, are indicated by an asterisk.

BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Belgium—*cont.*		
Toronto, Ontario 217 Bay Street	Consul	*B. Day.
Vancouver, B.C. P.O. Box 1043	Consul	*L. J. Dupuis.
Victoria, B.C.	Consul	
	Acting-Consul	*L. J. Eekman.
Winnipeg, Man. 290 Garry St.	Consul	*S. J. Dale.
Bolivia		
Montreal, P.Q. Empire Life Building, Room 205, 1434 St. Catherine Street W. Tel.: Marquette 5402	Consul-General for Canada	Dr. Roberto Pacheco Iturralde.
	Consul	*Paul Viau.
Victoria, B.C. Sprott Shaw School, 1012 Douglas Street.	Consul	*J. H. Beatty.
Brazil		
Ottawa, Ontario 400 Wilbrod Street. Tel.: 5-1485	Ambassador	His Excellency Dr. Acyr Paes.
	Air Attaché	Air Brig.-Gen. Ivan Carpenter Ferreira.
	First Secretary	Narbal Costa.
	Commercial Counsellor	C. de Lima Cavalcanti.
	Third Secretary	H. Bastos Tigre.
	Commercial Attaché	A. G. de Miranda Netto.
Halifax, N.S.	Consul	*E. O. Temple Piers.
Montreal, P.Q. 1117 St. Catherine Street W. Tel.: Marquette 7966	Consul-General	
	Consul-General	A. Teixeira Valladão.
	Vice-Consul	José Sette Camata, Jnr.
	Vice-Consul	José Carlos de Sousa Palhares.
Toronto, Ontario	Consul	
Vancouver, B.C. 325 Howe Street	Vice-Consul	*A. P. Watkins.
British West Indies and British Guiana		
Montreal, P.Q. 37 Board of Trade Building. Tel.: Plateau 8282. (For Trinidad and Tobago, Barbados, British Guiana, Jamaica, Antigua, St. Kitts-Nevis, Montserrat, The British Virgin Islands, Grenada, St. Vincent, St. Lucia, Dominica)	Trade Commissioner	C. Rex Stollmeyer.
	Assistant Trade Commissioner	Randal Dumoret.
Chile		
Ottawa, Ontario Suite 215, 56 Sparks Street. Tel.: 5-4402	Ambassador	His Excellency General Arnaldo Carrasco.
	Second Secretary	Carlos Croharé.
Montreal, P.Q. 1410 Stanley Street	Consul-General	Mariano Bustos.
Vancouver, B.C.	Consul	*H. Morris.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
China		
Ottawa, Ontario 410 Besserer Street. Tel.: 5-4713	Ambassador	His Excellency *Liu* Chieh.
	Counsellor	Dr. *Huang* Ting Young.
	Acting Military and Air Attaché	Lt.-Col. *Chow* Sik-Nin.
	Second Secretary	Dr. Chiachen Clarence *Chu*.
	Second Secretary	Dr. Kechin Wang.
	Third Secretary	*Lu* Tsung-yu.
	Attaché	*Liu* Te-yen.
	Attaché	*Shen* Tseh-shin.
Toronto, Ontario "The Delamar," 144 Riverview Drive	Consul-General	Yin Tso *Hsiung*.
	Consul	*Jen* Tsoo-Hong.
	Vice-Consul	Teh-Chuan *Yu*.
Vancouver, B.C. 510 Hastings Street W.	Consul-General	Hsueh-Chih *Wei*.
	Consul	Ying-yu *Huang*.
	Vice-Consul	*Tsung* Liang-i.
	Vice-Consul	Tsing-Kang *Chu*.
Winnipeg, Man. 318 McIntyre Street	Consul	Wen-Tao *Weng*.
	Vice-Consul	*Chow* Chung-Chu.
Colombia		
Montreal, P.Q. 3757 Wilson Avenue, N.-D.-G. Tel.: Dexter 5578	Consul-General for Canada	Jorge Castano-Castillo.
	Vice-Consul	Reinaldo Munoz-Zambrano.
Vancouver, B.C. 550 Beatty Street	Consul	*H. J. Morris.
Saint John, N.B.	Consul	*William A. Ross.
Costa Rica		
Montreal, P.Q. Room 917, 1410 Stanley Street. Tel.: Marquette 8653	Consul-General for Canada	Jorge F. Quesada.
	Consul	*Wilfred Carcaud.
Toronto, Ontario 88 Richmond Street West	Consul	*H. Colquhoun.
Vancouver, B.C. B.C. Marine Building	Consul	*J. H. Hamilton.
Cuba		
Ottawa, Ontario 499 Wilbrod Street. Tel.: 5-6834	Minister	His Excellency Dr. Mariano Brull.
	Second Secretary	Miss Silvia Shelton (absent).
	Commercial Attaché	Guy Pérez Cisneros (absent).
	Attaché	Enrique Diago.
Montreal, P.Q. 1477 Sherbrooke Street, Apt. 303. Tel.: Wellington 2425	Consul-General	Orlando de Lara.
	Vice-Consul	Julio Roloff.
Halifax, N.S. Room 219, Roy Building. Tel.: 3-7921	Vice-Consul	Alberto Rodriguez León.
Czechoslovakia		
Ottawa, Ontario 171 Clemow Avenue. Tel.: 2-1545	Counsellor and Chargé d'Affaires a.i.	Stanislav Klima.
	Military and Air Attaché	Col. Jaromir Petzold, M.B.E.
	Commercial Attaché	Dr. Miroslav Mareš.
Montreal, P.Q. 1440 St. Catherine Street W. Tel.: Plateau 7401	Consul-General	Dr. Jiri Mareš.
	Consul	Dr. Evzen Syrovátka.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Denmark		
Ottawa, Ontario Room 103, Birks Building, 107, Sparks Street. Tel.: 4-0704	Minister	His Excellency G. B. Holler.
	Military and Air Attaché	Maj.-Gen. C. C. J. Foerslev.
	Naval Attaché	Commodore F. H. Kjoelsen.
	Attaché	Svend-Aage Holler.
Calgary, Alta. Union Building	Vice-Consul	*E. Petersen.
Edmonton, Alta. 9720-108th Street	Vice-Consul	*C. E. Gundersen.
Halifax, N.S. 10 Prince Street	Consul	*H. I. Mathers.
Montreal, P.Q. 1440 St. Catherine Street W.	Consul	Theodor Schultz.
	Vice-Consul	E. M. Petersen.
Newcastle, N.B. P.O. Box 62	Vice-Consul	*Thrond Bertil Bruun.
Port Arthur, Ontario 124 Summit Avenue	Vice-Consul	*O. F. Strange.
Quebec, P.Q. 81 St. Peter Street	Vice-Consul	*W. H. Petry.
Regina, Sask. 1836-38 Hamilton Street	Vice-Consul	*A. H. Sneath.
Saint John, N.B. 20 South Wharf	Vice-Consul	*T. P. Larsen.
Saskatoon, Sask. 401 Ontario Avenue	Vice-Consul	*L. Stilling.
Toronto, Ontario 11 Nelson Street	Consul	*D. V. Klein.
Vancouver, B.C. 355 Burrard Street	Consul	*C. C. Busch.
Winnipeg, Man. 910 Palmerston Avenue	Consul	*G. L. Johannson.
	Vice-Consul	*C. C. S. Fremming.
Dominican Republic		
Halifax, N.S. 257 Jubilee Road	Consul	*J. G. Quigley.
	Vice-Consul	*O. F. MacKenzie.
Montreal, P.Q. 16 Weredale Park	Consul-General	Eduardo Estrella.
	Vice-Consul	*René Gaudreau.
Ottawa, Ontario 46 Delaware Avenue. Tel.: 2-1130	Consul-General	Julio A. Ricart.
Quebec, P.Q. 1 St. Jean Street	Consul	*Dr. G. A. Hostos.
Toronto, Ontario 320 Warren Road, Forest Hill Village	Consul	Danilo Brugal Alfau.
	Consul	*A. C. Douglas.
Ecuador		
Montreal, P.Q. 1410 Stanley Street. Tel.: Plateau 8473	Consul-General	Camilo J. Andrade y Pino.
Toronto, Ontario 137 West Wellington Street	Consul	*Samuel M. Mehr.
Vancouver, B.C. Bordercrest Farm, R.R. No. 1, Langley Prairie	Consul	*H. M. Morrison.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Finland		
Ottawa, Ontario Suite 628-630, Chateau Laurier Hotel. Tel.: 2-6411	Minister	His Excellency U. V. Toivola.
	Attaché	F. A. Mustonen.
Ottawa, Ontario Suite 628, Chateau Laurier Hotel. Tel.: 2-6411	Vice-Consul	F. A. Mustonen.
Toronto, Ontario 372 Bay Street. Tel.: Adelaide 2327, 2328	Consul	*Arnold K. Graham.
France		
Ottawa, Ontario 42 Sussex Street. Tel.: 2-1795	Ambassador	His Excellency Francisque Gay.
	Counsellor	Jean Basdevant.
	Cultural Counsellor	Jean Mouton.
	Second Secretary	Pierre Pelen.
	Attaché	Baron Michel de Warenghien de Flory.
	Attaché	André Houdart.
	Attaché	Camille Gay.
Office of the Military Attaché. 464 Wilbrod Street. Tel.: 3-5681	Military, Naval and Air Attaché	Colonel Gilbert Andrier.
	Assistant Military Attaché	Captain Jacques Hervé.
Office of the Commercial Counsellor 464 Wilbrod Street. Tel.: 3-5681	Commercial Counsellor and Financial Attaché	Bernard Lechartier.
	Commercial Attaché	Jacques Humbert.
	Assistant Commercial Attaché	Robert Le Guyader.
Office of the Commercial Attaché 610 St. James Street West, Montreal. Tel.: Harbour 2271	Commercial Attaché	Gérard Dubois.
Calgary, Alta. 208 Grain Exchange Building	Consular Agent	*Dr. L. O. Beauchemin.
Edmonton, Alta. 11214-102nd Avenue	Consular Agent	*Miss Paulette Crevolin.
Halifax, N.S. Maison Surcouf, 63 Victoria Road. Tel.: 3-7671	Consul	Robert Picard.
Moncton, N.B.	Consular Agent	*Calixte Savoie.
Montreal, P.Q. 1216 Stanley Street. Tel.: Plateau 2569	Consular-General	Ernest Triat.
	Consul	Michel Le Coënt.
	Consul	Pierre Gabard.
North Sydney, N.S.	Consular Agent	*Eugène Bénac.
Ottawa, Ontario 42 Sussex Street. Tel.: 2-1795	Vice-Consul	Amédée Lorand.
	Vice-Consul	Philippe Job.
Quebec, P.Q. 85 avenue de la Tour. Tel.: 2-6451	Consul-General	
	Vice-Consul	Paul del Perugia.
Saint John, N.B. Dykeman Building, 58 Dock Street	Consular Agent	*Charles Frédéric Whelly.
Toronto, Ontario 18 Breadalbane Street. Tel.: Elgin 8015	Consul	Paul Martin.
Vancouver, B.C. 850 Hastings Street West. Tel.: Bayview 1331	Consul	Alexis Anfossy.
Winnipeg, Man. 415 Paris Building. Tel.: 98838	Consul	P. Adigard des Gautries.

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* Consular officers who are *not* officers of career or citizens of the country they represent or who are engaged in business or profession other than their consular duties, are indicated by an asterisk.

BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Greece		
Ottawa, Ontario Suite 110, Chateau Laurier Hotel. Tel.: 5-2255	Ambassador	His Excellency Constantine M. Sakellaropoulo.
	Secretary	Stefanos Zannetos.
	Commercial Counsellor	Pami Malamaki.
Montreal, P.Q. 10 St. James Street W. Tel.: Lancaster 9333	Consul-General	*J. Dodds, C.B.E.
	Deputy-Consul	*D. Coulouridis.
Toronto, Ontario 125 Maitland Street. Tel.: Midway 4718	Consul	Demetrius Floras.
Guatemala		
Montreal, P.Q. 1468 Bishop Street. Tel.: Harbour 5789	Consul-General	Ernesto A. Morales.
	Consul	*Dr. Louis P. Hebert.
Vancouver, B.C. 513-402 Pender Street West	Consul	*Robert Clements.
Haiti		
Halifax, N.S. Roy Building, 435 Barrington Street	Consul	*R. M. Fielding.
Montreal, P.Q. 3435 St. Denis Street	Consul	Jean M. Lescouflair.
	Vice-Consul	*Dr. P. Geoffrion.
Ottawa, Ontario 18 Rideau Street	Consul-General for Canada	Philippe Cantave.
Toronto, Ontario 36 Toronto Street	Consul	*J. A. Gunn.
Honduras		
Montreal, P.Q. 261 St. James Street West. Tel.: Lancaster 8277. (Residence: 1021 Pratt Avenue, Outremont, P.Q.	Consul-General	*David Abraham Schwartz.
Iceland		
Ottawa, Ontario Chateau Laurier Hotel. Tel.: 2-6411	Minister	His Excellency Thor Thors (absent).
Halifax, N.S. Bank of Nova Scotia Building	Vice-Consul	*F. K. Warren.
Toronto, Ontario 95 Yonge Street. Tel.: Adelaide 0289	Vice-Consul	*J. Ragnar Johnson.
Vancouver, B.C. 4051 Cypress Street	Vice-Consul	*Lorentz H. Thorlaksson.
Winnipeg, Man. 910 Palmerston Avenue. Tel.: 71177	Consul	*G. L. Johannsson.
India		
Ottawa, Ontario 114 Wellington St. Tel.: 2-3549	High Commissioner	The Hon. Sardar Hardit Singh Malik, C.I.E., O.B.E.
	Public Relations Officer	Sardar Khushwant Singh.
Toronto, Ontario Royal Bank Building. Tel.: Elgin 3223	Trade Commissioner	M. R. Ahuja, O.B.E.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Ireland		
Ottawa, Ontario 140 Wellington St. Tel.: 3-6281	High Commissioner	Hon. John J. Hearne, S.C.
	Official Secretary	Eamonn L. Kennedy.
Italy		
Ottawa, Ontario 384 Laurier Avenue East. Tel.: 2-2404	Minister	His Excellency Count Carlo Fecia di Cossato.
	First Secretary	Mario Majoli.
Office of the Commercial Attaché 133, Sparks Street. Tel.: 3-3630	Commercial Attaché	Pietro Migone.
Montreal, P.Q. 1669 Sherbrooke Street West. Tel.: Fitzroy 4593	Consul	Piero Guadagnini.
Quebec, P.Q.	Acting Consular Agent	*Piero Franco Gravina.
Toronto, Ontario 9 Richmond Street East. Tel.: Adelaide 0818	Vice-Consul	Roberto Riccardi.
Vancouver, B.C. 163 Hastings Street West	Acting Consul	*Italo Rader.
Lebanon		
Ottawa, Ontario 200 Metcalfe Street. Tel.: 2-3155	Consul	Maurice J. Tabet.
Liberia		
Halifax, N.S. Armdale, P.O. Tel.: Halifax Exchange 4-0612	Consul	*P. E. Hechler.
Luxembourg		
Quebec, P.Q. 20 Raymond Casgrain Street. Tel.: 7-1103	Consul-General	*M. Koetz.
Mexico		
Ottawa, Ontario 11 Metcalfe Street. Tel.: 3-8988	Ambassador	His Excellency Primo Villa Michel.
	Third Secretary	Luis Ibargüen.
	Military Attaché	Lieut.-Gen. Leobardo C. Ruiz.
	Naval Attaché	Rear-Admiral Ignacio Garcia Jurado.
Montreal, P.Q. 507 Castle Building. Tel.: Lancaster 2502	Consul-General for Canada	Antonio Méndez Fernández.
	Consul	Alberto Geniz Avila.
	Vice-Consul	Jorge Alcocer Carregha.
Vancouver, B.C. 163 West Hastings Street, Room 219. Tel.: Tatlow 3547	Consul	Benjamín C. Treviño.
Monaco		
Montreal, P.Q. 5 St. James Street East. Tel.: Harbour 2220	Consul	*M. Pasquin.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Netherlands		
Ottawa, Ontario 168 Laurier Avenue East. Tel.: 5-7241	Ambassador	His Excellency Dr. J. H. van Roijen.
	Counsellor	Jonkheer G. Beelaerts van Blokland.
	Commercial Secretary	E. L. Hechtermans.
	Agricultural Attaché	Dr. A. S. Tuinman.
	Press Attaché	L. G. A. Schlichting.
	Attaché	Jonkheer J. L. R. Huydecoper.
	Attaché	B. Menage.
Calgary, Alta. 207 Toole Peet Building, 809, 2nd Street West. Tel.: Main 5754	Vice-Consul	*T. L. O'Keefe.
Chatham, Ontario 14 Fifth Street	Vice-Consul	*G. M. Dodman.
Edmonton, Alta. 316 McLeod Building, 100th Street. Tel.: 2-5147	Vice-Consul	*L. D. Hyndman.
Fort William, Ontario Cuthbertson Block	Vice-Consul	*F. Babe.
Halifax, N.S. Bank of Nova Scotia Building. Tel.: Bishop 8137	Vice-Consul	*W. H. Warren.
Hamilton, Ontario 428 Cannon Street East. Tel.: 7-2776	Vice-Consul	*G. Moes.
Montreal, P.Q. 1410 Stanley Street. Tel.: Lancaster 4196	Consul-General for Canada	Dr. A. Sevenster.
	Consul	Baron O. F. Bentinck van Schoonheten.
	Consul	H. de Vos.
Quebec, P.Q. 80 St. Pierre Street	Vice-Consul	*J. de Billy.
Regina, Sask. 1778 Scarth Street. Tel.: 22667	Vice-Consul	*D. J. Thom.
Saint, John, N.B. 57 Charlotte Street. Tel.: 3-2041	Vice-Consul	*R. D Keirstead.
Sydney, N.S. 341½ Charlotte Street	Vice-Consul	*C. D. Ryan.
Toronto, Ontario 255 Bay Street. Tel.: Elgin 4655	Consul	*H. P. van Gelder.
Vancouver, B.C. Suite 1100, Stock Exchange Building 475 Howe Street. Tel.: Tatlow 2920	Consul	Jonkheer F. K. L. Coenen van's-Gravesloot.
Victoria, B.C. 922 Government Street	Vice-Consul	*W. G. C. Holland.
Winnipeg, Man. 298 Main Street. Tel.: 97357	Consul General	*Dr. L. J. F. van Riemsdijk.
New Zealand		
Ottawa, Ontario 107 Wurtemburg Street. Tel.: 5-1443	High Commissioner	Hon. James Thorn.
	Official Secretary	C. A. Sharp.
	Assistant Secretary	Brian S. Lendrum.
Montreal, P.Q. Room 609, Sun Life Building. Tel.: Lancaster 4104	Trade Commissioner	J. A. Malcolm.
	Assistant to Trade Commissioner	A. W. Broadbent.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Nicaragua		
Montreal, P.Q. 2329 Côte St., Catherine Road. Tel.: Exdale 5186	Consul-General	Dr. Luis Mena Solorzano.
	Consul	*Lucien Viau.
Toronto, Ontario 53 Colborne Street	Consul	*W. D. Branson.
Vancouver, B.C. *c/o* C. Gardner Johnson, Ltd.	Consul	*J. K. Cavers.
Norway		
Ottawa, Ontario 509 Plaza Building, 45 Rideau Street. Tel.: 5-4569	Minister	His Excellency Daniel Steen.
	Military Attaché	Col. Otto H. Munthe-Kaas (absent).
	Attaché	Hartley Antonsen.
Montreal, P.Q. 1410 Stanley Street. Tel.: Plateau 9785	First Secretary	Knut Orre.
	Second Secretary	Björn Augdahl.
Campbellton, N.B. Bank of Nova Scotia Building	Vice-Consul	*J. T. Troy.
Camrose, Alta. P.O. Box 490	Vice-Consul	*I. A. Christenson.
Estevan, Sask. 12th Avenue	Consul	*H. A. Westergaard.
Fort William, Ontario P.O. Box 146, Port Arthur	Acting Vice-Consul	*J. Styffe.
Halifax, N.S. 10 Prince Street	Consul	*H. I. Mathers.
Louisburg, N.S.	Vice-Consul	*G. D. D. Lewis.
Montreal, P.Q. 1410 Stanley Street	Consul-General for Canada	H. E. Daniel Steen.
	Consul	Knut Orre.
	Vice-Consul	Björn Augdahl.
Newcastle, N.B.	Vice-Consul	*D. S. Creagham.
North Sydney, N.S.	Vice-Consul	*W. Hackett.
Port Arthur, Ontario No. 5 Dock	Acting Vice-Consul	*J. Styffe.
Prince Rupert, B.C. P.O. Box 953	Vice-Consul	*Dr. J. Munthe.
Quebec, P.Q. 71 St. Peter Street	Vice-Consul	*F. W. Clark.
Saint John, N.B. 145 Prince William Street	Vice-Consul	*H. E. Kane.
Saskatoon, Sask.	Vice-Consul	*A. Anstensen.
Sydney, N.S. 181 Charlotte Street	Vice-Consul	*R. F. Young.
Toronto, Ontario 67 Yonge Street	Acting Consul	*E. James Bennett.
Vancouver, B.C. 325 Burrard Street	Consul	*H. Worsoe.
Victoria, B.C. 1010 Langley Street	Vice-Consul	*C. A. Ridout.
Winnipeg, Man. 317 Fort Street	Consul	*C. T. Kummen.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Panama		
Montreal, P.Q. 1889 Sherbrooke Street East. Tel.: Cherrier 3530	Consul General	*Armando Carles.
	Consul	*José de Nobili.
Saint John, N.B. 11 South Wharf. Tel.: 3-2691	Consul	*J. N. Cochrane.
Toronto, Ontario 169 Yonge Street. Tel.: Waverley 4951	Consul	*E. Le Feuvre.
Vancouver, B.C. 570 Granville Street. Tel.: Pacific 1835	Consul	*E. G. Johnson.
Paraguay		
Vancouver, B.C. 687 Howe Street. Tel.: Marine 1946	Consul	H. Richmond.
Peru		
Ottawa, Ontario 36 Elgin Street, P.O. Box 925. Tel.: 5-7201	Ambassador	His Excellency Alfredo Benavides.
	Minister, Counsellor	Dr. Luis Alvarado G.
	First Secretary	Dr. Alberto Soto de la Jara.
	Third Secretary	Dr. José Alvarado-Sánchez.
	Commercial Attaché	Francisco Pardo de Zela G.
Halifax, N.S. Keith Hall, 65 Hollis Street	Consul General	*S. C. Oland.
Montreal, P.Q. Sun Life Building, Suite 677-A	Consul General	Jorge Romero.
Toronto, Ontario Suite 801, Dominion Bank Building, 68 Yonge Street	Consul	*W. C. Reid.
Vancouver, B.C. 991 West Hastings Street	Consul-General	*H. M. Elliott.
Poland		
Ottawa, Ontario 183 Carling Avenue. Tel.: 2-4076, 2-3233	Minister	His Excellency Eugeniusz Jan Milnikiel.
	First Secretary	Dr. Z. R. Bielski.
	First Secretary	A. Z. Kruczkowski.
	Second Secretary	W. Z. Zbik.
	Cultural Relations Attaché	E. Semil.
	Press Attaché	Ludwik Mysak.
Ottawa, Ontario 89 Fifth Avenue, Tel.: 5-7675	Commercial Attaché	T. Wiewiorowski.
Montreal, P.Q. 985 Sherbrooke Street West. Tel.: Marquette 1217	Consul General	Dr. Tadeusz Rakowski.
	Vice-Consul	Jan. J. Rolian.
Winnipeg, Man. 611 McIntyre Block. Tel.: 97793	Consul	Zygmunt Ziemski.
Portugal		
Montreal, P.Q. 1499 Bishop Street. Tel.: Belair 1607	Consul General	Dr. Vasco Vieira Garin.
	Consul	*Dr. E. Dubeau.
North Sydney, N.S. Commercial Street. Tel.: 190	Vice-Consul	*W. Hackett.

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BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Portugal—*cont.*		
Saint John, N.B. .. .. 4 North Wharf. Tel.: 3-2581	Consul	*H. A. Allison.
Toronto 2, Ontario .. .. .. 481 University Avenue. Tel.: Adelaide 5981	Consul	*Lieut.-Col. J. B. Maclean.
El Salvador		
Montreal, P.Q. .. .. .. 1234 Drummond Street, Apt. 6. Tel.: Plateau 8676	Consul-General for Canada ..	Roberto Imberton.
	Vice-Consul	*Denis Inwood.
Toronto, Ontario .. .. .. 13 Bernard Avenue. Tel.: Midway 4444	Consul	*Ernest Faul.
Vancouver, B.C. .. .. .. 503 B.C. Mining Building	Consul	*Thomas J. F. Flynn.
Spain		
Halifax, N.S. .. .. .. 10 Prince Street. Tel.: 3-6459	Vice-Consul	*G. Webb.
Montreal, P.Q. .. .. .. Sun Life Building. Tel.: Plateau 1357	Consul-General for Canada ..	Francisco Agramonte y Cortijo.
	Consul	J. M. Castro-Rial.
	Vice-Consul	*Daniel de Yturralde.
North Sydney, N.S. .. .. Bank of Nova Scotia Building. Tel.: N-167	Vice-Consul	*R. Sainthill.
Quebec, P.Q... .. .. .. 19 rue Aberdeen. Tel.: 7070	Vice-Consul	*H. Coulombe.
Toronto, Ontario .. .. .. 1 Cheritan Avenue. Tel.: Hyland 0200	Vice-Consul	*Col. F. B. Robins.
Vancouver, B.C. .. .. .. 325 Howe Street. Tel.: Kerrisdale 0021M	Vice-Consul	*F. P. Bernard.
Sweden		
Ottawa, Ontario .. .. .. 720 Manor Avenue, Rockcliffe Park. Tel.: 2-1729	[1]Minister	His Excellency Per Wijkman.
	Attaché	C.-H. Nauckhoff.
	Military Air Attaché	Lieut.-Col. D. H. van Schinkel.
	Civil Air Attaché	K. G. Hultström.
Calgary, Alta. .. .. .. 809-2nd Street West. Tel.: Main 5754	Vice-Consul	*T. L. O'Keefe.
Edmonton, Alta. .. .. .. 11115-89th Avenue	[2]Vice-Consul	*E. Skarin.
Halifax, N.S. .. .. .. 436 Barrington Street. Tel.: 3-6650	[2]Vice-Consul	*J. M. Davison.
Montreal, P.Q. .. .. .. 1462 Bishop Street. Tel.: Lancaster 7145	[1]Minister and Consul-General for Canada	His Excellency Per Wijkman.
Newcastle, N.B. .. .. .. *c/o* J. D. Creaghan Co., Ltd. Tel.: 11	Vice-Consul	*D. S. Creaghan.

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[1] In charge of Rumanian interests.

[2] With personal rank of consul.

BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
Sweden—*cont.*		
Port Arthur, Ontario 315 Wolseley Street. Tel.: North 325	Vice-Consul	*J. Koreen.
Prince Rupert, B.C. 315 Third Avenue West. Tel.: 384	Consul	*O Hanson.
	Vice-Consul	*A. Brooksbank.
Quebec, P.Q. P.O. Box 340. Tel.: 2-8715	Vice-Consul	*G. Dunn.
Sydney, N.S. 514 George Street. Tel.: 6186	Vice-Consul	*O. N. Mann.
North Sydney, N.S.	Vice-Consul	*O. N. Mann.
Saint John, N.B. 22 King Street. Tel.: 3-2613	[1]Vice-Consul	*D. W. Ledingham.
Toronto, Ontario 54 Wolseley Street. Tel.: Adelaide 4421	Consul	*J. E. Ander.
Vancouver, B.C. 207 West Hastings Street. Tel.: Marine 6743	Consul	*K. A. Stahl.
Winnipeg, Man. 470 Main Street. Tel.: 24-934	Consul	*A. Hermanson.
Switzerland		
Ottawa, Ontario 5 Marlborough. Tel.: 5-1837, 5-1838	[2]Minister	His Excellency Dr. Victor Nef.
	Counsellor	Emile Bisang.
	Military and Air Attaché	Lieut.-Col. Max Waibel, G.S.C.
	Second Secretary	Walter E. A. Jaeggi.
Montreal, P.Q. Suite 1521, Sun Life Building, Dominion Square. Tel.: Plateau 1878	Consul General	Dr. Frédéric J. Kaestli.
Ottawa, Ontario 5 Marlborough. Tel.: 5-1837, 5-1838	Vice-Consul	Albert Wyler.
Toronto, Ontario 159 Bay Street. Tel.: Elgin 4097	Consul	*J. Oertly.
	Vice-Consul	S. Sembinelli.
Vancouver, B.C. 402 West Pender Street. Tel.: Pacific 4020	Consul	*E. Baeschlin.
Winnipeg, Man. 416 Main Street. Tel.: 9-7013	Acting Consul	E. A. Steiner.
Turkey		
Ottawa, Ontario Room 612, Chateau Laurier Hotel. Tel.: 3-4701	Ambassador	His Excellency Muzaffer Göker.
	First Secretary	Kenan Gökart.
	Military Attaché	Lieut.-Col. Pertev Gökçe.
	Assistant Military Attaché	Staff Major Necmettin Ergüven.
	First Secretary	Efdal Deringil.
	Commercial Attaché	Ismail Kavadar.

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[1] with personal rang of consul.

[2] Representing the interests of Liechtenstein.

BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Union of South Africa

Place	*Designation*	*Name*
Ottawa, Ontario 15 Sussex Street. Tel.: 2-1771	High Commissioner	Hon. Dr. P. R. Viljoen, M.C.
	Secretary	Herbert Neethling.
	Military and Air Adviser	Major C. S. Kotzé.
	Civil Air Liaison Officer	Lewis E. Lang.
	Commercial Secretary	J. H. Brand.
	Assistant Secretary	Norman Best.
Toronto, Ontario 47 Yonge Street. Tel.: Elgin 2617	Honorary Trade Commissioner	A. H. Sainsbury.
Vancouver, B.C. 355 Burrard Street	Honorary Trade Commissioner	Col. R. D. Williams.

Union of Soviet Socialist Republics

Place	*Designation*	*Name*
Ottawa, Ontario	Ambassador	
285 Charlotte Street. Tel.: 5-4341	Counsellor and Chargé d'Affaires a.i.	Nikolai D. Belokhvostikov.
285 Charlotte Street	Counsellor	Mikhail V. Degtiar. (absent).
14 Range Road. Tel.: 5-2862	Acting Military Attaché	Lieut.-Col. Nikolai N. Serov.
285 Charlotte Street	First Secretary	Alexei V. Sokolov.
14 Range Road	Assistant Military Attaché	Lieut.-Col. Ivan N. Pavshoukov.
14 Range Road	Assistant Military Attaché	Lieut.-Col. G. I. Volochko.
14 Range Road	Assistant Military Attaché	Capt. I. V. Poupychev.
285 Charlotte Street	Second Secretary	Vladimir G. Skokov (absent).
285 Charlotte Street	Second Secretary	Dmitri Kouznetsov.
285 Charlotte Street	Attaché	Pavel Komine.
285 Charlotte Street	Representatives of the Commercial Counsellor	Nikolai S. Skvortsov.

United Kingdom of Great Britain and Northern Ireland

Place	*Designation*	*Name*
Ottawa, Ontario Earnscliffe. Tel.: 2-4275	High Commissioner	Hon. Sir Alexander Clutterbuck K.C.M.G., M.C.
	Deputy High Commissioner	G. E. B. Shannon.
	Economic Adviser	R. K. Jopson, O.B.E.
	Army Adviser	Brigadier E. C. Colville, D.S.O.
	Air Force Adviser	Air Commodore C. W. Busk, C.B., M.C., A.F.C.
	Naval Adviser	Capt. Sir Robert Stirling-Hamilton, Bart., R.N.
	Information Adviser	G. G. Vincent.
	Senior Secretary	G. W. Tory.
	Secretary (Information)	P. H. Bennett.
	Secretary (Commerce)	A. R. Bruce.
	Assistant Air Force Adviser	G/C. M. W. S. Robinson, C.B.E., R.A.F.
	Assistant Naval Adviser	Comdr. J. S. Dalison, D.S.O., R.N.
	Assistant Naval Adviser	Comdr. (E) H. W. Findlay, D.S.C., R.N.
	Assistant Army Adviser	Lieut.-Col. B. A. G. Jones, D.S.O., R.A.
	Assistant Agricultural Adviser	J. A. Young.
	Assistant Secretary	J. N. O. Curle.
	Assistant Secretary (Information)	Lieut.-Comdr. R. D. Wall, R.N. (r't'd).
	Assistant Secretary	J. K. Batey.
	Assistant Army Adviser	Major H. D. Nelson Smith, M.C.
	Assistant Army Adviser	Major J. R. Fishbourne, M.B.E.
Montreal, P.Q. 1111 Beaver Hall Hill. Tel.: Lancaster 7170, Harbour 2257 (For Quebec)	Trade Commissioner	P. S. Young.
	Assistant Trade Commissioner	Miss E. E. Spencer.
	Assistant Trade Commissioner	F. E. Dobson.
(For the Maritime Provinces and Newfoundland)	Trade Commissioner	W. D. Lambie.

BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
United Kingdom of Great Britain and Northern Ireland—*cont.*		
Ottawa, Ontario 56 Sparks Street. Tel.: 3-8814 (For Canada and Newfoundland)	Senior Trade Commissioner	R. J. Jopson, O.B.E.
	Trade Commissioner	A. R. Bruce.
	Assistant Trade Commissioner	A. W. Doe.
Toronto, Ontario 67 Yonge Street. Tel.: Adelaide 2174 (For Ontario)	Trade Commissioner	J. Paterson.
	Trade Commissioner	A. P. Timms.
	Assistant Trade Commissioner	E. F. Hammond.
Vancouver, B.C. 850 West Hastings Street. Tel.: Pacific 4644. (For Alberta and British Columbia)	Trade Commissioner	H. Oldham.
	Assistant Trade Commissioner	B. S. Lowe.
Winnipeg, Man. 703 Royal Bank Building. Tel.: Tel.: 92-956. (For Manitoba, Saskatchewan and North-West Ontario)	Trade Commissioner	W. G. Coventry.
	Assistant Trade Commissioner	T. W. Robinson.
United Nations (Specialised Agencies)		
International Civil Aviation Organisation		
Montreal, P.Q. Dominion Square Building. Tel.: Plateau 6141	President	Dr. Edward Warner.
	Secretary-General	Dr. Albert Roper.
	Deputy Secretary-General	A. R. McComb.
International Labour Organisation		
Montreal, 25, P.Q. Tel.: Plateau 7801	Director-General	Edward Phelan.
	Assistant Director-General	G. A. Johnston.
	Assistant Director-General	R. Rao.
United States of America		
Ottawa, Ontario 100 Wellington Street. Tel.: 2-2611	Ambassador	His Excellency the Hon. Laurence A Steinhardt (nominated).
	Minister	Julian F. Harrington.
	Counsellor of Embassy for Economic Affairs	Homer S. Fox.
	Military Attaché	Col. Raymond E. S. Williamson.
	Air Attaché	Col. Jack C. Hodgson.
	Naval Attaché and Naval Attaché for Air	Capt. Benjamin S. Custer.
	First Secretary	Richard W. Byrd.
	Agricultural Attaché	Francis A. Flood.
	Commercial Attaché	William L. Kilcoin.
	Civil Air Attaché	George S. Roper.
	Second Secretary	Terry B. Sanders, Jnr.
	Second Secretary	Paul F. DuVivier.
	Second Secretary	William N. Dale.
	Assistant Air Attaché	Col. Sherwood E. Buckland.
	Assistant Military Attaché	Lieut.-Col. August Schomburg.
	Assistant Military Attaché	Lieut.-Col. Harold L. Richey.
	Assistant Naval Attaché and Assistant Naval Attaché for Air	Commander F. E. Janney.
	Assistant Agricultural Attaché	Roy O. Westley.
	Attaché	Henry N. Groman.
	Attaché	Dr. John L. Rouleau.
	Attaché	Otho T. Colclough.
Calgary, Alta. Toronto General Trusts Building Tel.: M4142	Consul	Charles W. Allen.
Edmonton, Alta. 313 Empire Building. Tel.: 2-6539	Consul	Paul C. Seddicum.
	Vice-Consul	Charles H. McLoon.

BRITISH COMMONWEALTH AND FOREIGN REPRESENTATIVES IN CANADA—*cont.*

Place	*Designation*	*Name*
United States of America—*cont.*		
Fort William and Port Arthur, Ont. 137 May Street N. Tel.: South 2228	Consul	Charles H. Stephan.
Halifax, N.S. Bank of Nova Scotia Building. Tel.: 3-9387	Consul-General	A. W. Klieforth.
	Consul	Archibald E. Gray.
	Vice-Consul	Fred M. Wren.
	Vice-Consul	J. Leopold Romero.
Hamilton, Ontario 42 James Street S. Tel.: 2-1118	Consul	Francis L. Spalding.
	Vice-Consul	George Moffitt, Jnr.
Montreal, P.Q. 1410 Stanley Street. Tel.: Plateau 8605	Consul-General	H. Lawrence Groves.
	Consul	Euegne M. Hinkle.
	Consul	Jack K. McFall.
	Consul	James E. Callahan.
	Consul	John R. Barry.
	Vice-Consul	Walter H. Schoellkopf, Jnr.
	Vice-Consul	Stanley T. Hayes.
	Vice-Consul	Stephen Olesnevich.
	Vice-Consul	Robert C. Johnson, Jnr.
	Vice-Consul	Frederic H. Behr, Jnr.
	Vice-Consul	H. T. Pepin.
	Vice-Consul	Charles T. Warner.
	Vice-Consul	Wilbur P. Chase.
	Vice-Consul	Elleard B. Heffern.
	Vice-Consul	James R. Ruchti.
	Vice-Consul	Miss Marie C. Chabot.
Niagara Falls, Ontario Newman Hall. Tel.: 104	Consul	Arthur C. Williams.
	Vice-Consul	William H. Brown.
Ottawa, Ontario 100 Wellington Street. Tel.: 2-2611	Consul	Richard W. Byrd.
	Consul	Francis A. Flood.
	Consul	William L. Kilcoin.
	Consul	George S. Roper.
	Consul	George C. Minor.
	Consul	Cyrus B. Follmer.
	Consul	Terry B. Sanders, Jnr.
	Vice-Consul	Paul F. DuVivier.
	Vice-Consul	William N. Dale.
	Vice-Consul	Miss Dorothy T. Brown.
	Vice-Consul	Jay F. Steinmetz.
Quebec, P.Q. 65 St. Ann Street. Tel.: 2-3480	Vice-Consul	Thomas S. Estes.
	Vice-Consul	Miss Florence O. Anderson.
Regina, Sask. 22-23 Canada Life Building. Tel.: 22-211	Vice-Consul	James R. Riddle.
	Vice-Consul	D. E Cyphers.
Saint John, N.B. 56 Germain Street. Tel.: 3-2873	Consul	Ralph Miller.
	Vice-Consul	John P. Nagoski.
Sarnia, Ontario 102 Front Street N. Tel.: 1774	Vice-Consul	C. E. B. Payne.
Toronto, Ontario 302 Bay Street. Tel.: Adelaide 8239	Consul-General	H. Earle Russell.
	Consul	Sidney A. Belovsky.
	Consul	F. A. Bohne.
	Vice-Consul	Robert W. Harding.
	Vice-Consul	Charles F. Johnson.
	Vice-Consul	Abbott Judd.
	Vice-Consul	Malcolm R. Dougherty.
	Vice-Consul	John P. MacDonald.
	Vice-Consul	J. William Henry.

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Place	*Designation*	*Name*
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Vancouver, B.C. 355 Burrard Street. Tel.: Marine 8474	Consul-General	Howard K. Travers.
	Consul	Nelson P. Meeks.
	Consul	George D. Andrews.
	Vice-Consul	Augustus C. Owen.
	Vice-Consul	Charles C. Carson.
	Vice-Consul	William R. Duggan.
Victoria, B.C. 805 Government Street. Tel.: Garden 3413	Consul	Paul W. Meyer.
	Vice-Consul	Robert J. MacQuaid.
Windsor, Ontario Guarantee Trust Building. Tel.: 3-4651	Consul	Bernard Gotlieb.
	Consul	John L. Bankhead.
	Consul	Duncan M. White.
	Vice-Consul	Juan L. Gorrell.
	Vice-Consul	C. C. Sundell.
Winnipeg, Man. 257 Smith Street. Tel.: 92525	Consul-General	W. H. McKinney.
	Vice-Consul	J. Ramon Solana.
	Vice-Consul	Joseph W. Sowell.
	Vice-Consul	Quentin R. Bates.
Uruguay		
Ottawa, Ontario 7 Delaware Avenue. Tel.: 4-1879	Minister	His Excellency César Montero de Bustamante.
	First Secretary	Luis A. Sotto.
Montreal, P.Q. 3869 Côte des Neiges Road. Tel.: Wellington 6515	[1]Consul	*Carlos Maria Reyles.
Toronto, Ontario 3074 Bloor Street W. Tel.: Junction 3311	Consul	*José G. Villaverde.
Vancouver, B.C. 401 Marine Building. Tel.: Marine 4111	Consul	*Roberto Korner.
	Vice-Consul	*Carlos Francisco Reif.
Venezuela		
Halifax, N.S. 111 Upper Water Street	Vice-Consul	*H. R. Silver.
Montreal, P.Q. 1516 Pine Avenue West. Tel.: Wilbank 1872	Consul-General for Canada	Marco Aurelio Rodriguez.
Toronto, Ontario 320 Bay Street. Tel.: Adelaide 6467	Consul	*Hugh J. Plaxton.
Vancouver, B.C. 1001 Marine Building. Tel.: Pacific 6740	Consul	*D. S. Donaghy.
Yugoslavia		
Ottawa, Ontario 259 Daly Avenue. Tel.: 3-6289	Minister	His Excellency Mato A. Jaksié.
	Counsellor	Pavle Lukin.
	Counsellor	Branko Vukelié.

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* Consular officers who are *not* officers of career or citizens of the country they represent or who are engaged in business or profession other than their consular duties, are indicated by an asterisk.

[1] In charge of the Consulate General of Uruguay in Canada.

Directories and Classified Lists

ADVERTISING AGENCIES

Ardiel Advertising Agency, Ltd., 371, Bay Street, Toronto, Ontario.

The Atlantic Advertising Agency, Ltd., Sackville, New Brunswick.

The Baker Advertising Agency, Ltd., 522, University Avenue, Toronto, Ontario.

Canadian Advertising Agency, Ltd., Sun Life Building, Montreal, Quebec.

Cockfield, Brown & Co., Ltd., Metropolitan Building, Toronto, Ontario.

Dancer-Fitzgerald-Sample (Canada), Ltd., 403, Royal Bank Building, Toronto, Ontario.

A. J. Denne & C., Ltd., 90, King Street West, Toronto, Ontario.

Erwin, Wasey of Canada, Ltd., 1170, Bay Street, Toronto, Ontario.

Ferres Advertising Service, 16, James Street South, Hamilton, Ontario.

The James Fisher Co., Ltd., 204, Richmond Street West, Toronto, Ontario.

J. J. Gibbons, Ltd., 200, Bay Street, Toronto, Ontario.

F. H. Hayhurst Co., Ltd., 38, King Street West, Toronto, Ontario.

L. J. Heagerty, Ltd., 19, Melinda Street, Toronto, Ontario.

Russell T. Kelley, Ltd., 447, Main Street East, Hamilton, Ontario.

Locke, Johnson & Co., Ltd., Harbour Commission Building, Toronto, Ontario.

MacLaren Advertising Co., Ltd., 372, Bay Street, Toronto, Ontario.

McConnell, Eastman & Co., Ltd., 147, University Avenue, Toronto, Ontario.

McKim Advertising, Ltd., 320, Bay Street, Toronto, Ontario.

O'Brien Advertising, Ltd., 207, West Hastings Street, Vancouver, British Columbia.

Alford R. Poyntz Advertising, Ltd., 95, King Street East, Toronto, Ontario.

Publicité J.—E. Huot, Limitée, 353, St. Nicholas Street, Montreal, Quebec.

E. W. Reynolds & Co., Ltd., 145, Yonge Street, Toronto, Ontario.

Ronalds Advertising Agency, Ltd., 701, Keefer Building, Montreal, Quebec.

R. C. Smith & Son, Ltd., 80, King Street West, Toronto, Ontario.

Spitzer & Mills, Ltd., 19, Richmond Street West, Toronto, Ontario.

Stevenson & Scott, Ltd., University Tower, Montreal, Quebec.

Stewart-Lovick and MacPherson, Ltd., 198, West Hastings Street, Vancouver, British Columbia.

Tandy Advertising Agency, Ltd., 66, Portland Street, Toronto, Ontario.

J. Walter Thompson Co., Ltd., 80, Richmond Street West, Toronto, Ontario.

Vickers & Benson, Ltd., 312, Keefer Building, Montreal, Quebec.

Walsh Advertising Co., Ltd., 100, Adelaide Street West, Toronto, Ontario.

Young & Rubicam, Ltd., 1120, University Tower, Montreal, Quebec.

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Advertising and Sales Club of London, Canada—*Secretary:* H. W. Donahue, 267, Dundas Street, London, Ontario.

Association of Canadian Advertisers, Incorporated—*Secretary:* Athol McQuarrie, Room 303, 85, Richmond Street West, Toronto 1, Ontario.

Canadian Advertising and Sales' Federation—*Secretary:* J. E. Cooper, 24, King Street West, Toronto, Ontario.

Canadian Association of Advertising Agencies—*Secretary:* Harry M. Tedman, 111, Avenue Road, Toronto, Ontario.

Industrial Advertisers' Association of Ontario—*Secretary:* E. S. Jerred, *c/o* Link-Belt, Ltd., 791, Eastern Avenue, Toronto, Ontario.

National Council of Employing Printers and Lithographers—*Secretary:* Charles E. Holmes, 294, St. Catherine Street West, Montreal, Province of Quebec.

Poster Advertising Association of Canada—*Secretary:* A. J. Tilton, 80, Richmond Street West, Toronto 1, Ontario.

Western Daily Newspaper Advertising Managers' Association—*Secretary:* John B. Stark, 230, Twentieth Street, Saskatoon, Saskatchewan.

AGRICULTURAL ASSOCIATIONS

Agricultural Institute of Canada, Incorporated—*Secretary:* C. Gordon O'Brien, 1005, Confederation Building, Ottawa, Ontario.

Alberta Federation of Agriculture—*Secretary:* James R. McFall, 525, Lougheed Building, Calgary, Alberta.

Alberta Sugar Beet Growers—*Secretary:* Harry Boyse, Room 4, Stafford Block, Lethbridge, Alberta.

Alberta Wheat Pool—*Secretary:* R. O. German, Lougheed Building, Calgary, Alberta.

Alberta Wholesale Implement Association—*Secretary:* W. E. Hall, 401, Lougheed Building, Calgary.

Allied Florists & Growers of Canada, Incorporated—*Secretary:* Joseph A. Whitmore, Room 35, 10, Adelaide Street East, Toronto, Ontario.

Association des Producteurs de Betteraves à Sucre de Québec—*Secretary:* Gilbert Dionne, St. Hilaire, Rouville Co., Province of Quebec.

British Columbia Agricultural Association—*Secretary:* W. H. Mearns, Willows Park, Victoria, British Columbia.

British Columbia Bulb Growers' Federation—*Secretary:* D. R. McAdams, P.O. Box 1065, Victoria, British Columbia.

British Columbia Federation of Agriculture—*Secretary:* C. A. Hayden, P.O. Box 249, Vernon, British Columbia.

Canadian Association of Exhibitions—*Secretary:* W. D. Jackson, Room 315, Richmond Building, London, Ontario.

Canadian Federation of Agriculture—*Secretary:* Colin G. Groff, 304 Booth Building, Ottawa, Ontario.

Canadian Horticultural Council—*Secretary:* L. F. Burrows, 295, Albert Street, Ottawa, Ontario.

Canadian Milk Powder Manufacturers' Association—*Secretary:* A. S. Thurston, Meaford, Ontario.

Canadian National Exhibition Association—*Secretary:* Robert J. Dixon, Exhibition Grounds, Toronto, Ontario.

Canadian Seed Growers' Association, Incorporated—*Secretary:* W. T. G. Wiener, 251, Besserer Street, Ottawa, Ontario.

Canadian Sugar Beet Producers' Association—*Secretary:* C. B. Gladman, 42, Sixth Street, Chatham, Ontario.

Central Canada Exhibition Association—*Secretary:* H. H. McElroy, Lansdowne Park, Ottawa, Ontario.

Cheese Makers' Association of Western Ontario—*Secretary:* Wesley Krotz, Millbank, Ontario.

Cowichan Agricultural Society—*Secretary:* W. R. Barker, P.O. Box 1017, Duncan, British Columbia.

Dairy Farmers of Canada—*Secretary:* Erle Kitchen, Woodstock, 409, Huron Street, Toronto, Ontario.

Dairymen's Association of Nova Scotia—*Secretary:* W. J. Bird, Department of Agriculture and Marketing, Truro, Nova Scotia.

Exposition provinciale de Québec—*Secretary:* Emery Boucher, Coliseum, Exhibition Park, Quebec, Province of Quebec.

Fédération Horticole de Québec—*Secretary:* Bruno Landry, 152, Notre-Dame Street East, Montreal, Province of Quebec.

Manitoba Agricultural Societies—*Secretary:* N. C. MacKay, Director Extensions Service, Manitoba Department of Agriculture, Winnipeg, Manitoba.

Manitoba Buttermakers' Association—*Secretary:* L. Munday, Dairy Branch, Room 143, Legislative Building, Winnipeg, Manitoba.

Manitoba Dairy Association—*Secretary:* C. H. P. Killick, Room 143, Legislative Building, Winnipeg, Manitoba.

Manitoba Federation of Agriculture and Co-operation—*Secretary:* J. T. McLean, B.S.A., 610, Royal Bank Building, Winnipeg, Manitoba.

Manitoba Pool Elevators—*Secretary:* F. W. Ransom, Eighth Floor, Wheat Pool Building, Winnipeg, Manitoba.

Manitoba Pool Elevators, Seed Department—*Secretary:* F. W. Ransom, 715, Marion Street, St. Boniface, Manitoba.

Manitoba Wholesale Implement Association—*Secretary:* A. A. Thomson, " Canadian Farm Implements," 365, Bannatyne Avenue, Winnipeg, Manitoba.

Maritime Federation of Agriculture—*Secretary:* Roy Grant, Box 358, Moncton, New Brunswick.

National Dairy Council of Canada—*Secretary:* W. K. St. John, National Dairy Council of Canada, Journal Building, Ottawa, Ontario.

New Brunswick Agricultural Societies United—*Secretary:* T. Allan Best, Stanley, New Brunswick.

New Brunswick Fruit Growers' Association, Incorporated—*Secretary:* A. G. Turney, 692, Queen Street, Fredericton, New Brunswick.

North-West Line Elevators' Association—*Secretary:* J. G. Fraser, 751, Grain Exchange Building, Winnipeg, Manitoba.

Nova Scotia Creamery Association—*Secretary:* W. J. Bird, Department of Agriculture and Marketing, Truro, Nova Scotia.

Nova Scotia Fruit Growers' Association—*Secretary:* R. D. Sutton, Kentville, Nova Scotia.

Nova Scotia Ice Cream Manufacturers' Association—*Secretary:* W. J. Bird, Department of Agriculture and Marketing, Truro, Nova Scotia.

Nova Scotia Milk and Cream Producers' Association—*Secretary:* V. B. Leonard, R.R. 1, Bridgetown, Nova Scotia.

Nova Scotia Milk Distributors' Association—*Secretary:* W. J. Bird, Department of Agriculture and Marketing, Truro, Nova Scotia.

Ontario Association of Agricultural Societies—*Secretary:* J. A. Carroll, Department of Agriculture, Parliament Buildings, Toronto 2, Ontario.

Ontario Association of Ice Cream Manufacturers—*Secretary:* Walter L. Fetterley, 122, Bloor Street West, Toronto, Ontario.

Ontario Federation of Agriculture—*Secretary:* V. S. Milburn, 409, Huron Street, Toronto 5, Ontario.

Ontario Food Council—*Secretary:* M. M. Robinson, 49, Wellington Street East, Toronto, Ontario.

Ontario Fruit Growers' Association—*Secretary:* M. M. Robinson, 49, Wellington Street East, Toronto, Ontario.

Ontario Horticultural Association—*Secretary:* J. A. Carroll, Department of Agriculture, Parliament Buildings, Toronto, Ontario.

Ontario Ploughmen's Association—*Secretary:* J. A. Carroll, Department of Agriculture, Parliament Buildings, Toronto 2, Ontario.

Ontario Sugar Beet Producers' Association—*Secretary:* C. B. Gladman, Ridgetown, 277, William Street, S. Chatham, Ontario.

Ontario Vegetable Growers' Association—*Secretary:* M. M. Robinson, 49, Wellington Street East, Toronto, Ontario.

Ontario Wholesale Farm Equipment Association—*Secretary:* A. Morley Grigg, 27, Mount Royal Avenue, Hamilton, Ontario.

Pacific National Exhibition—*Secretary:* Miss Ida E. Rae, Exhibition Park, Vancouver, British Columbia.

Quebec Wholesale Farm Equipment Association—*Secretary:* R. W. Mitchell, 135, St. Peter Street, Montreal 1, Province of Quebec.

Saskatchewan Federation of Agriculture—*Secretary:* L. Bright, Veteran Block, Regina, Saskatchewan.

Saskatchewan Wholesale Implement Association—*Secretary:* L. C. McKinley, *c/o* John Deere Plow Co., Ltd., Regina, Saskatchewan.

Union Catholique des Cultivateurs—*Secretary:* Gerard Filion, 515, Viger Avenue, Montreal, Province of Quebec.

Western Canada Association of Exhibitions—*Secretary:* Mrs. Letta Walsh, *c/o* Saskatoon Exhibition, Bessborough Hotel, Saskatoon, Saskatchewan.

AGRICULTURAL CO-OPERATIVES

Association Co-opératives des Producteurs de Fourrures de Québec—*Secretary:* C. A. Tessier, 61, Charest Boulevard, Quebec, Province of Quebec.

British Columbia Co-operative Union—*Secretary:* Arthur J. Wirick, 1, West Cordova Street, Vancouver, British Columbia.

Consolidated Grocers' Co-operative Association of British Columbia—*Secretary:* William Allison, 1160, Hamilton Street, Vancouver, British Columbia.

Co-opérative Fédérée de Québec—*Secretary:* Romeo Martin, 130, St. Paul Street East, Montreal, Province of Quebec.

Co-operative Union of Canada—*Secretary:* A. B. MacDonald, 193, Sparkes Street, Ottawa, Ontario.

Co-operative Union of Saskatchewan—*Secretary:* L. J. Bright, 101, Veteran Block, Regina, Saskatchewan.

Fishermen's Co-operative Federation—*Secretary:* D. G. Macdonald, 1, West Cordova Street, Vancouver, British Columbia.

Kyuquot Trollers Co-operative Association—*Secretary:* A. E. Carr, 1140, Government Street, Victoria, British Columbia.

Manitoba Co-operative Beet Growers' Association—*Secretary:* Bruce Edee, Dugald, Manitoba.

Maritime Co-operative Services Limited—*Secretary:* W. H. McEwen, Box 368, Moncton, New Brunswick.

New Brunswick Co-operative Union—*Secretary:* F. A. Blanchard, L.S.A., M.Sc., P.O. Box 368, Moncton, New Brunswick.

Ontario Co-operatives Union—*Secretary:* A. C. Savage, 28, Duke Street, Toronto, Ontario.

United Farmers' Co-operative Company Limited—*Secretary:* Leonard Harman, 28, Duke Street, Toronto, Ontario.

United Fishermen's Co-operative Association—*Secretary:* Karl Dybhavn, P.O. Box 968, Vancouver, British Columbia.

BANKS OF CANADA

Bank of Canada,
Ottawa, Ontario.

The Industrial Development Bank,
Ottawa, Ontario.

Canadian Bank of Commerce,
25, King Street West,
Toronto, Ontario.

Banque Canadienne Nationale,
Place d'Armes,
Montreal, Quebec.

Dominion Bank,
1, King Street West,
Toronto 1, Ontario.

The Royal Bank of Canada,
Montreal, Province of Quebec.

The Bank of Nova Scotia,
38, Melinda Street,
Toronto 1, Ontario.

The Provincial Bank of Canada,
221, St. James Street West,
Montreal, Province of Quebec.

The Bank of Toronto,
King and Bay Streets,
Toronto, Ontario.

Barclays Bank (Canada),
214, St. James Street West,
Montreal, Province of Quebec.

Imperial Bank of Canada,
51, King Street West,
Toronto 1, Ontario.

Bank of Montreal,
119, St. James Street West,
Montreal, Province of Quebec.

The Home Bank of Canada,
Toronto, Ontario.

BUILDING AND CONSTRUCTION ASSOCIATIONS

Association des Constructeurs de Québec—*Secretary:* J. E. Picard, 267, St. Paul Street, Quebec, Province of Quebec.

British Columbia Building Contractors' Association—*Secretary:* Fergus Haig, 1451, Broadway West, Vancouver, British Columbia.

British Columbia Shipbuilders' Federation—*Secretary:* J. W. Thompson, *c/o* Burrard Dry Dock Company, Ltd., North Vancouver, British Columbia.

Builders' Exchange, Incorporated—*Secretary:* D. A. Paterson, 620, Cathcart Street, Montreal, Province of Quebec.

Building and Construction Industries' Exchange of British Columbia—*Secretary:* R. J. Lecky, 342, West Pender Street, Vancouver, British Columbia.

Building Contractors' Association—*Secretary:* N. Wheatcroft, 218B, Kennedy Street, Nanaimo, British Columbia.

Canadian Association of Equipment Distributors—*Secretary:* E. C. Neville, Room 602, 45, Richmond Street West, Toronto, Ontario.

Canadian Association of Painting and Decorating Contractors—*Secretary:* Roy M. Lethbridge, 801, Carlaw Avenue, Toronto 6, Ontario.

Canadian Builders' Supply Association—*Secretary:* R. W. Gould, 903, Castle Building, Montreal, Province of Quebec.

Canadian Construction Association—*General Manager:* R. G. Johnson, Sparks Street, Ottawa, Ontario.

Canadian Institute of Plumbing and Heating—*Secretary:* K. B. Allison, 314, Canada Cement Building, Montreal, Province of Quebec.

Canadian Institute of Steel Construction, Incorporated—*Secretary:* R. C. Manning, 124, Bloor Street West, Toronto, Ontario.

Canadian Shipbuilding and Ship Repairing Association—*Secretary:* Angus McGugan, P.O. Box 545, Station " B," Ottawa, Ontario.

Canadian Terrazzo and Mosaic Contractors' Association—*Secretary:* Gordon Sanford, 854, Palmerston Avenue, Toronto, Ontario.

Constructive Mechanical Trades Exchange Ltd.—*Secretary:* Edmund A. Saunders, P.O. Box 65, Halifax, Nova Scotia.

Electrical Service League of British Columbia—*Secretary:* R. Hall, 600, Granville Street, Vancouver, British Columbia.

Electric Service League of Ontario—*Secretary:* G. W. Austen, 4, Carlton Street, Toronto, Ontario.

General Contractors' Association—*Secretary:* R. J. Lecky, 342, West Pender Street, Vancouver, British Columbia.

National Association of Master Plumbers and Heating Contractors of Canada, Incorporated—*Secretary:* J. L. Bourbonniere, 1053, Canada Cement Building, Montreal, Province of Quebec.

National Association of Master Plumbers and Heating Contractors of Canada, Incorporated (Alberta Branch)—*Secretary:* P. T. W. Knowles, 10,236, Wadhurst Road, Edmonton, Alberta.

National Association of Master Plumbers and Heating Contractors of Canada, Incorporated (British Columbia Branch)—*Secretary:* S. W. Welsh, 342, West Pender Street, Vancouver, British Columbia.

National Association of Master Plumbers and Heating Contractors of Canada, Incorporated (Manitoba Branch)—*Secretary:* A. W. Miller, 42, Syndicate Building, 222, Portage Avenue, Winnipeg, Manitoba.

National Association of Master Plumbers and Heating Contractors of Canada (New Brunswick Branch)—*Secretary:* N. Greenfield, 31, Garden Hill Avenue, Moncton, New Brunswick.

National Association of Master Plumbers and Heating Contractors of Canada, Incorporated (Saskatchewan Branch)—*Secretary:* H. Dracup, Moose Jaw, Saskatchewan.

National Construction Council of Canada—*Secretary:* I. Markus, 74, King Street East, Toronto, Ontario.

National House Builders' Association—*Secretary:* Jos. T. Crowder, 444, Confederation Life Building, 17, Queen Street East, Toronto, Ontario.

Ontario Association of Plumbing Inspectors and Affiliates—*Secretary:* V. S. Baker, Department of Health, London, Ontario.

Ontario General Contractors' Association—*Secretary:* Norman M. Fraser, 1104, Bay Street, Toronto 5.

Ontario Road Builders' Association—*Secretary:* W. L. Dobbin, Grant Contracting Co., Ltd., 26, Queen Street, East, Toronto, Ontario.

Vancouver Electrical Association—*Secretary:* John S. Homersham, 535, Homer Street, Vancouver, British Columbia.

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BETTER BUSINESS BUREAUX

Association of Canadian Better Business Bureaux, Incorporated—*Secretary:* Arthur R. Haskell, 102, Bank Street, Ottawa, Ontario.

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Granum—*Secretary:* Mr. Terry Cairns.
Grimshaw—*Secretary-Treasurer:* Mr. H. Wortman.
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Onoway—*Secretary-Treasurer:* Mr. O. G. Wadel.
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Rycroft—*Secretary-Treasurer:* Mr. Joseph Paquin.

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Spirit River—*Secretary-Treasurer:* Rev. W. A. Haddon.
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Taber—*Secretary:* Mr. R. C. Paterson.
Trochu and Community—*Secretary:* Mr. Leroy Roach.
Two Hills—*Secretary:* Mr. N. Myskiw.
Valhalla Centre and District—*Secretary:* Mr. M. Wereley.
Vermilon—*Secretary-Treasurer:* Mr. E. J. Richardson.
Wanham—*Secretary:* Mr. E. H. Prevost.
Wetaskiwin—*Secretary:* Mr. H. O. Braden.
Wildwood Community—*Secretary:* Mrs. L. W. Clark.

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Blue River—*Secretary:* Mr. N. F. Nelson.
Burns Lake and District—*Secretary:* Mr. Vic Montaldi.
Campbell River and District—*Secretary:* Mr. Bert Lipp.
Central North Thompson, Clearwater Station—*Secretary-Treasurer:* Mr. Pat Poulton.
Chilliwack—*Secretary:* Mr. Ian T. Hepburn.
Courtenay-Comox—*The Secretary.*
Cranbrook—*Secretary-Treasurer:* Mr. Murray McFarlane.
Creston—*Secretary:* Mr. H. A. Powell.
Cumberland—*Secretary-Treasurer:* Mr. Cliff Gardner.
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District of Coquitlam—*Secretary:* Mr. Norman L. Duggan.
Enderby and District—*Secretary:* Mr. Wm. T. Panton.
Fort St. John and District—*Secretary:* Mr. H. A. Mason.
Fort Langley and District—*Secretary:* Mr. W. T. Rogers.
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Kimberley—*Secretary:* Mr. Eric Whistlecroft.
Ladysmith—*Secretary:* Mr. R. Pringle.
Langley—*Secretary-Treasurer:* Mr. W. Lawrence Dence.
Lower Arrow Lake—*Secretary:* Mr. D. E. Poole.
Lumby and District—*Secretary:* Mr. Chas. Shields.
Maple Ridge—*Secretary-Treasurer:* Mr. Harry Allen.
McBride and District—*Secretary-Treasurer:* Mrs. Marcia Taggart.
Merritt—*Secretary:* Mr. N. D. Dixon.
Mission City and District—*Secretary:* Mr. H. N. Jarman.
Nanaimo—*Secretary:* Mr. N. Leslie Corfield.
New Westminster—*Executive Secretary:* Mr. Frank Wilson.
Nelson—*Secretary:* Mr. W. G. C. Lanskail.
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North Vancouver—*Secretary:* Mr. J. Roger Burnes.
Okanagan Falls—*Secretary:* Mr. D. S. Slater.
Oliver—*Secretary:* Mr. S. B. Hirtle.
Osoyoos—*Secretary-Treasurer:* Mr. Stan Stodola.
Parksville and District—*Secretary:* Mr. Geo. A. Scott.
Pemberton and District—*Hon. Secretary:* Mr. H. Wyatt-Purden.
Penticton—*Secretary:* Mr. H. B. Morley.
Port Alberni and District—*The Secretary.*
Port Coquitlam—*Secretary:* Mr. W. H. Rowland.
Powell River and District—*Secretary-Treasurer:* Mr. W. G. Harris.
Prince George—*Secretary-Treasurer:* Mr. H. R. Fretwell.
Qualicum Beach—*Secretary-Treasurer:* Dr. G. Gushue-Taylor.
Quesnel—*Secretary-Treasurer:* Mr. Eric Fleming.
Revelstoke—*Secretary:* Mr. J. A. Abrahamson.
Rossland—*Secretary-Treasurer:* Mr. R. S. Wallace.
Saanich—*Secretary:* Mr. H. Patterson.
Squamish and Howe Sound—*Secretary:* Mr. J. R. Morrison.
Summerland—*Secretary:* Mr. L. Perry.
Terrace and District—*Secretary:* Mr. Wm. Osborne, Jnr.
Tofino—*Secretary-Treasurer:* Mr. Norman G. Pratt.
Trail—*Secretary:* Mr. W. D. Crowder.
Vancouver—*Executive Secretary:* Mr. Reg. T. Rose.
Vanderhoof and District—*Secretary:* Mr. Geo. Ogston.
Vernon—*Secretary:* Mr. C. E. Demeritt.
Wells—*Secretary-Treasurer:* Mr. A. M. Armstrong.
Westbank—*Secretary:* Mr. N. Reece.
White Rock—*Secretary:* Mr. R. L. Young.
Williams Lake—*Secretary:* Mr. J. L. Stitt.

MANITOBA

Altona—*Secretary-Treasurer:* Mr. R. C. Friesen.
Binscarth and District—*Secretary-Treasurer:* Mr. Russell Rice.
Birch River—*Secretary:* Mr. Robert Locke.
Birtle—*Secretary-Treasurer:* Mr. B. O. Whitfield.
Boissevain and District—*Secretary-Treasurer:* Mr. John Ryan.
Brandon—*Secretary:* Mr. H. A. McGill.
Dauphin—*Secretary:* Mr. Paul Nyznik.
Erickson—*Secretary:* Mr. H. R. Paulsen.
Gretna—*Secretary:* Mr. John E. Kehler.
Killarney—*Secretary-Treasurer:* Mr. C. C. High.
Manitou—*Secretary-Treasurer:* Mr. Ron Chalmers.
Melita—*Secretary:* Mr. S. O. Goodman.
Neepawa—*Secretary:* Mr. C. E. G. Bates.
St. James—*Managing Secretary-Treasurer:* Mr. Garth F. Pickell.
Selkirk—*Secretary:* Mr. Victor Erickson.
Sifton—*Secretary:* Mr. S. Genik.
Souris and Glenwood—*Secretary:* Mr. J. W. Fowlie.
Transcona—*Secretary:* Mr. Edward D. Lidgate.
Winnipegosis—*Secretary:* Mr. J. Pawlicki.

NEW BRUNSWICK

Bathurst—*Secretary-Treasurer:* Mr. H. C. Read.
Campbellton—*Secretary:* Mr. Rod. M. Raymond, Jnr.
Chatham—*Secretary:* Mr. Aubrey Greeno.
Dalhousie—*Secretary:* Mr. Albert J. Godin.
Grand Manan—*Secretary-Treasurer :* Mr. K. W. Ingersoll.
Lancaster—*Secretary:* Mr. Donald MacRae.
Moncton—*Secretary:* Mr. J. H. Farthing.
Newcastle—*Secretary:* Mr. G. Roy McWilliam.
Sackville—*Secretary-Treasurer:* Mr. Chas. W. Moffatt.
Saint John—*Secretary:* Miss Mary D. Lewis.
St. Stephen-Milltown—*Secretary-Treasurer:* Mr H. R. Stuart.
Shediac—*Secretary:* Mr. H. R. Thayer.
Woodstock—*Secretary-Treasurer:* Mr. G. C. Kirkpatrick.

NOVA SCOTIA

Amherst—*Secretary-Treasurer:* Mr. A. R. Lusby.
Annapolis—*Secretary:* Mr. L. M. How.
Antigonish—*Secretary-Treasurer:* Mr. V. L. Curry.
Arichat-Isle Madame—*Secretary-Treasurer:* Mr. J. A. Benoit.
Bridgetown—*Secretary-Treasurer:* Mr. John D. Orlando.
Bridgewater—*Secretary-Treasurer:* Mr. D. L. Rafuse.
Canning—*Secretary:* Mr. W. M. Mosher.
Canso—*Secretary:* Mr. H. A. Rice.
Chester—*Secretary:* Mr. Irving S. Heffler.
Dartmouth—*Secretary:* Mr. Walter S. Meredith.
Digby—*Secretary:* Mr. C. M. Levy.
Glace Bay—*Secretary-Treasurer:* Mr. Johnston Chew.
Guysborough—*Secretary:* Mr. V. N. Hart.
Halifax—*Secretary:* Mr. E. A. Saunders.
Hantsport—*Secretary:* Mr. J. F. Ainsworth.
Inverness—*Secretary:* Mr. N. J. Murphy.
Kentville—*Secretary:* Mr. Webster Macdonald.
Kingston—*Secretary-Treasurer:* Mr. O. H. Rose.
Liverpool—*Secretary:* Mr. W. F. MacEachern.
Louisburg—*Secretary:* Mr. D. G. Cameron.
Lunenburg—*Secretary-Treasurer:* Mr. J. D. Crease.
Mahone Bay—*Secretary-Treasurer:* Mr. A. Earle Giffin.
Middleton—*Secretary-Treasurer:* Mr. D. B. Wright.
New Germany District—*Secretary-Treasurer:* Mr. H. L. Molloy.
New Glasgow—*Secretary:* Mr. C. L. R. Gray.
New Waterford—*Secretary-Treasurer:* Mr. Lionel Campbell.
North Queens, Caledonia—*Secretary:* Mr. G. R. Chute.
Pictou—*Secretary:* Mr. J. H. Baillie.
Riverport—*Secretary:* Mr. M. S. Wentzell.
Sherbrooke—*Secretary:* Mr. H. R. Cameron.
Springhill—*Secretary:* Mr. A. J. Mason.
Sydney, Cape Breton Island—*Secretary-Treasurer:* Mr. R. Roland McIntyre.
Sydney Mines—*Secretary:* Mr. Patrick Kasouf.
Truro—*Secretary:* Mr. H. N. Munro.
Weymouth—*Secretary:* Mr. Glidden Campbell.
Windsor—*Secretary-Treasurer:* Mr. A. C. Christie.
Wolfville—*Secretary-Treasurer:* Mr. H. G. A. Humphreys
Yarmouth—*Secretary:* Mr. Clyde L. Robbins.

ONTARIO

Alexandria—*Secretary:* Mr. J. A. Seale.
Almonte and Ramsay—*Secretary:* Mr. Jack Smithson.
Beamsville and District—*Secretary:* Mr. Harold M. Stidwill.
Belloy—*Secretary-Treasurer:* Mr. C. R. Goodvin.
Bradford and District—*Secretary:* Mr. Stewart S. McKenzie.
Brantford—*Manager:* Mr. W. D. Rutherford.
Cardinal—*Acting Secretary:* Mr. R. R. Elliott.
Chapleau—*Secretary-Treasurer:* Mr. C. W. Collins.
Chatham—*Secretary-Manager:* Mr. Philip E. Valleau.
Cobden—*Secretary:* Mr. F. A. McCallum.
Cochrane—*Secretary:* Mr. Marty Hannan.
Coldwater—*Secretary:* Mr. Lloyd Letherby.
Collingwood—*Secretary:* Mr. J. A. Grout.
Cornwall—*Secretary:* Mr. H. C. F. Poste.
Dryden District—*Secretary:* Mr. J. L. Skillen.
Dundas—*Secretary:* Mr. J. A. Dickson.
Elmira—*Secretary:* Mr. J. A. Rowland.
Embro—*Secretary:* Mr. Alex Forbes.
Galt—*Secretary:* Mr. Harry Groves.
Georgetown—*Secretary-Treasurer:* Mr. Walter T. Evans.
Goderich—*Secretary-Treasurer:* Mr. W. A. Coulthurst.
Gravenhurst—*Secretary:* Mr. M. K. Tomlinson.
Guelph—*Secretary-Manager:* Mr. Edward L. A. Whitaker.
Hawkesbury—*Secretary:* Mr. Clarence O'Gorman.
Huntsville—*Secretary:* Mr. R. G. Robinson.
Iroquois—*Secretary:* Mr. Ed. P. Thompson.
Kenora—*Secretary-Treasurer:* Mr. Geo. H. Welsby.
Kirkland Lake District—*Secretary:* Mr. R. A. Outhet.
Larder Lake—*Secretary-Treasurer:* Mr. Anthony Bos.
Meaford—*Secretary:* Mr. A. S. Thurston.
Merrickville District—*Secretary:* Mr. J. W. Morrow.
Milton—*Secretary:* Mr. E. R. Pearen.
Moose Creek—*Secretary:* Mr. Leonard Robillard.
Morrisburg—*Secretary:* Mr. Roy Geach.
New Hamburg—*Secretary:* Mr. A. R. G. Smith.
New Liskeard—*Secretary-Treasurer:* Mr. W. E. Fielding.
Orillia—*Secretary-Manager:* Mr. O. G. Smith.
Ottawa—*Secretary-Manager:* Mr. W. J. Cairns.
Owen Sound—*Secretary-Treasurer:* Mr. Fred S. Maclachlan.
Palmerston—*Secretary-Treasurer:* Mr. Geo. Lavelle.
Paris—*Secretary:* Mr. J. H. Knill.
Parry Sound—*Secretary-Treasurer:* Mr. W. L. Fisk.
Pembroke—*Secretary:* Mr. H. J. Clauson.
Perth—*Secretary:* Mr. A. E. James.
Port Dover—*Secretary:* Mr. E. W. Thomas.
Port Hope—*Manager:* Mr. L. G. P. Montizambert.
Renfrew—*Secretary:* Mr. H. A. Jordan.
Simcoe—*Secretary:* Mr. Harold I. Pond.
Stratford—*Secretary:* Mr. J. A. Lumsden.
Sturgeon Falls—*Secretary:* Miss M. Sullivan.
Teeswater—*Secretary-Treasurer:* Mr. R. H. King.
Thamesville—*Secretary:* Mr. A. T. Herbison.
Thornbury—*Secretary:* Mr. E. C. Carr.
Thorold—*Secretary:* Mr. Paul E. Buss.
Timmins—*Secretary:* Mr. Ralph J. Bryson.
Toronto—*General Manager:* Mr. F. D. Tolchard.
Wellington—*Secretary:* Mr. R. E. Morden.
Westboro—*Secretary:* Mr. Chas. A. Port.
Woodbridge—*Corresponding Secretary:* Mr. D. G. Brownlee.
Woodstock—*Secretary:* Mr. C. H. Symons.
Wiarton—*The Secretary.*

PRINCE EDWARD ISLAND

Charlottetown—*Secretary:* Mr. A. Walthen Gaudet.
Summerside—*Secretary:* Mr. H. L. Rodd.

QUEBEC

Drummondville—*Secretary:* Paul H. Frigon.
Granby—*Secretary:* Mr. Aimé Laurion.
Huntingdon—*Secretary:* Mr. N. F. Manning.
Mann—*Secretary:* Mr. H. F. Fair.
Montreal—*General Manager:* Mr. H. C. Beatty.
New Carlisle—*Secretary:* Mr. J. B. S. Mitchell.
Ormstown—*Secretary:* Mr. Georges Dahme.
Quebec City—*Secretary:* J. E. Renaud.
Richmond and Melbourne—*Secretary:* Mr. O. C. Blair.
Sawyerville—*Secretary-Treasurer:* Mr. W. Provis.

SASKATCHEWAN

Alameda—*Secretary-Treasurer:* Mr. Walker G. Gibson.
Assiniboia—*Secretary-Treasurer:* Mr. George Kay.
Battleford—*Secretary:* Mr. J. Dewan.
Biggar—*Secretary:* Mr. Elmer McKenzie.
Bienfait—*Secretary:* Mr. J. H. Cuddington.
Borden—*Secretary:* Mr. M. J. Kobierski.

Cando—*Secretary:* Mr. C. H. Walker.
Canora and District—*Secretary:* Mr. A. W. Wylie.
Carieville and District—*Secretary:* Mr. F. Bellamy.
Crooked River—*Secretary:* Mr. A. C. Fairbairn.
Davidson—*Secretary:* Mr. J. H. Vopni.
Eastend—*Secretary:* Mr. J. G. Matthews.
Elfros—*Secretary-Treasurer:* Mr. W. G. White.
Estevan and District—*Secretary:* Mr. D. Bannatyne.
Eston—*Secretary:* Mr. R. J. S. Tracy.
Gainsborough and District—*Secretary:* Mr. R. E. Rusk.
Gravelbourg—*Recording Secretary:* Mr. J. H. Cummings.
Gull Lake and District—*Secretary:* Mr. E. D. Orchard.
Herbert—*Secretary:* Mr. E. Bender.
Hudson Bay and District—*Secretary-Treasurer:* Mr. A. G. Schell.
Indian Head—*Secretary:* Mr. H. O. Meyers.
Kamsack District—*Secretary:* Mr. H. C. Hodges.
Kelvington—*Secretary:* Mr. P. Stanwell.
Laflèche—*Secretary:* Mr. E. H. Bilodeau.
Langenburg—*Secretary:* Mr. Robert Miller, Jnr.
Leader—*Secretary:* Mr. Sam Floyd Gill.
Leroy and District—*Secretary:* Mr. G. E. Pirie.
Lintlaw District—*Secretary:* Mr. Jos. Ziolkoski.
Lloydminster—*Secretary:* Mr. George K. Ross.
MacNutt and District—*Secretary-Treasurer:* Mr. A. J. Wagner.
Maple Creek—*Secretary-Treasurer:* Mr. Geo. S. Herringer.
Melville and District—*Secretary-Treasurer:* Mr. S. H. McLeod.
Minton—*Secretary:* Mr. D. D. Ayotte.
Morse District—*Secretary:* Mr. H. E. Reimer.
Mossbank—*Secretary:* Mr. D. F. Hantelman.
Nipawin and District—*Secretary:* S. M. Potts.
North Battleford—*Commissioner:* Mr. Frank Wright.
Prelate—*Secretary-Treasurer:* Mr. Joe P. Kosolofski.
Prince Albert—*Commissioner:* Mr. Gordon M. Cook.
Qu'Appelle and District—*Secretary:* Mr. George Darragh.
Regina—*Secretary:* A. Aitken.
Rhein and District—*Secretary:* Mr. J. Weinemaster.
Richard and District—*Secretary:* Mr. H. Gordon King.
Rosetown—*Secretary-Treasurer:* Mr. J. P. Cracknell.
Rouleau—*Secretary-Treasurer:* Mr. H. C. Goudie.
Saskatoon—*Commissioner:* Mr. S. N. Maceachern.
Swift Current—*Secretary:* Mr. James Greenblatt.
Tisdale—*Secretary:* Mr. I. F. Stothers.
Torquay—*Secretary:* Mr. T. W. Shelstad.
Wadena and District—*Secretary:* Mr. J. Hanson.
Whitewood—*Secretary-Treasurer:* Mr. J. S. Cook.
Wilkie—*Secretary:* Mr. Wm. Shury.
Wiseton—*Secretary:* Mr. H. Thrasher.
Wood Mountain—*Secretary:* Mr. Ivan H. Root.
Yorkton and District—*Secretary-Treasurer:* Mr. John C. Matheson.

YUKON

White Horse—*Secretary:* Mr. R. J. Rowan.

ASSOCIATED BOARDS OF TRADE

ALBERTA

Alberta Board of Trade and Agriculture—*Secretary:* Mr. Dave Caldwell, Red Deer, Alberta.
Peace River County—*Secretary:* Mr. John Paul, Spirit River, Alberta.
The Central Peace River—*Secretary:* Mr. L. A. Leriger, Wanham, Alberta.

BRITISH COLUMBIA

Central British Columbia—*Secretary:* Mr. Duncan Kerr, Terrace, British Columbia.
Eastern British Columbia—*Secretary:* Mr. J. A. Bracken, Nelson, British Columbia.
The Fraser Valley and Lower Mainland—*Secretary:* Mr. Harry Jarman, Mission City, British Columbia.
Okanagan and Main Line Districts—*Secretary:* Mr. Wm. Panton, Enderby, British Columbia.
The Southern Interior—*Secretary:* Mr. H. Partridge, Naramata, British Columbia.
Vancouver Island—*Secretary:* Mr. George I. Warren, Victoria, British Columbia.

MANITOBA

Manitoba—*Secretary:* Mr. M. J. G. McMullen, Winnipeg, Manitoba.
Southern Manitoba—*Secretary-Treasurer:* Mr. A. Dack, Morden, Manitoba.
Western Manitoba—*Secretary-Treasurer:* Mr. H. A. McGill, Brandon, Manitoba.

NOVA SCOTIA

Annapolis Valley—*Secretary:* Mr. J. D. Mosher, Kentville, Nova Scotia.
Cape Breton Island—*Secretary:* Mr. Laurence J. Doucet, Sydney, Nova Scotia.
South Shore—*Secretary:* Mr. W. Maceachern, Liverpool, Nova Scotia.

ONTARIO

The Algoma District—*Secretary:* Mr. Bews, Sault Ste. Marie, Ontario.
Eastern Ontario—*The Secretary:* Ottawa, Ontario.
Northern Ontario—*The Secretary:* North Bay, Ontario.

PRINCE EDWARD ISLAND

Prince Edward Island—*Secretary:* Mr. Geo. J. Tweedy, Charlottetown, Prince Edward Island.

QUEBEC

Eastern Townships Association—*Secretary:* Mr. C. E. Soles, Sherbrooke, Quebec.
Syndicat D'Initiatives—*Secretary:* M. J. Auguston Fortin, Chicoutimi, Quebec.

SASKATCHEWAN

Carrot River Valley—*Secretary:* Mr. I. F. Stothers, Tisdale, Saskatchewan.
Saskatchewan—*Secretary:* Mr. Alex Aitken, Regina, Saskatchewan.

INDUSTRIAL ASSOCIATIONS

Association professionnelle des Industriels—*Secretary:* Sylvio Bouvier, 933, Dominion Square Building, 1010, Ste. Catherine West, Montreal, Province of Quebec.

Brantford Industrial Commission—*Secretary:* C. J. Kenyon, City Clerk's Office, Brantford, Ontario.

Calgary Industrial Commission—*Secretary:* J. M. Miller, City Clerk, Calgary, Alberta.

Chatham Industrial Service Bureau—*Chairman Industrial Committee:* Alderman J. R. Newkirk, Chatham, Ontario.

Comité des Industries du Conseil municipal de la Cité de Saint-Jean, Québec—*Secretary:* H. Morais, P.O. Box 217, St. John, Province of Quebec.

Comité Industriel de la Cité de Salaberry-de-Valleyfield—*Secretary:* Charles Codebecq, City Clerk, City Hall, Valleyfield, Province of Quebec.

Comité Industriel de Thetford Mines—*Secretary:* Georges Payeur, Thetford Mines, Province of Quebec.

Commissariat de l'Industrie de la Ville de Québec—*Industrial Commissioner:* Armund Viau, L.S.C., City Hall, Quebec, Province of Quebec.

Conseil d'Orientation économique du Saguenay—*Secretary-Commissioner:* J. G. Lamontagne, P.O. Box 424, Chicoutimi, Province of Quebec.

Conseil économique de Lachine—*Secretary:* Raymond Robert, P.O. Box 44, Lachine, Province of Quebec.

Edmonton Industrial Development Board—*Secretary:* G. W. Curtis, Industrial Commissioner, Civic Block, Edmonton, Alberta.

Galt Industrial and Publicity Committee—*Chairman:* Alderman D. Brayshaw, City Hall, Galt, Ontario.

Hamilton Industrial Department—*Commissioner of Industries:* Herbert D. Fearman, City Hall, Hamilton, Ontario.

Industrial Association of British Columbia—*Secretary:* Miss Margaret M. Riley, 1024, Marine Building, Vancouver, British Columbia.

Industrial Development Board of Alberta—*Address:* Government Buildings, Edmonton, Alberta.

Industrial Development Board of Manitoba—*Managing Secretary:* R. A. Sara, 903, Confederation Life Building, Winnipeg, Manitoba.

London Industrial Committee—*Secretary:* H. T. Smith, City Hall, London, Ontario.

New Glasgow Business Development Association—*President:* Col. J. Geddie Cotter, New Glasgow, Nova Scotia.

Ottawa-Hull District Industrial Board—*Secretary:* W. J. Cairns, Birks Building, Ottawa, Ontario.

Peterborough Manufacturers' Committee—*Secretary:* E. A. Outram, City Clerk, City Hall, Peterborough, Ontario.

Prince Albert Industrial Development Board—*Secretary:* J. M. Cuelenaere, K.C., Barrister, Prince Albert, Saskatchewan.

Sarnia Industrial Committee—*Secretary:* M. D. Stewart, City Clerk, City Hall, Sarnia, Ontario.

Société des Industriels de Québec—*Secretary:* Wilbrod Bherer, K.C., 229, St. Joseph Street, Quebec, Province of Quebec.

South Saskatchewan River Development Association—*Secretary:* G. O'Shaughnessy, 18, High Street East, Moose Jaw, Saskatchewan.

Stratford Industrial Commission—*Secretary:* W. H. Riehl, City Hall, Stratford, Ontario.

Sydney New Industries' Committee—*Secretary:* James Macdonald, City Clerk, Sydney, Nova Scotia.

Timmins Town Planning Commission—*Secretary:* V. Salomaa, Municipal Building, Timmins, Ontario.

TOURIST AND PUBLICITY

Canadian Association of Tourist and Publicity Bureaux—*Secretary:* Douglas R. Oliver, 81, Hudson Drive, Toronto, Ontario.

CANADIAN RETAIL ASSOCIATIONS

Canadian Retail Federation—*Manager:* Geo. S. Hougham, 6, Adelaide Street East, Toronto, Ontario.

Retail Merchants' Association of Canada, Incorporated—*Secretary:* Fernand Boisseau, Room 80, 354, St. Catherine Street East, Montreal, Province of Quebec.

Retail Merchants' Association of Canada, Incorporated (British Columbia Board)—*Secretary:* Geo. R. Matthews, 218, Pacific Building, Vancouver, British Columbia.

CHAMBERS OF COMMERCE

The Canadian Chamber of Commerce—*Executive Secretary:* Donald L. Morrell, 530, Board of Trade Building, Montreal, Province of Quebec.

ALBERTA

Bonnyville—*Secretary:* Mr. W. J. Beaupré.
Cardston and District—*Secretary:* Mr. Len Hansen.
Edmonton—*Acting Executive Secretary:* Mr. D. Mackay.
Elk Point—*Secretary-Treasurer:* Mr. Joseph V. Jacobson.
Falher—*Secretary-Treasurer:* Mr. G. Bugeaud.
Grande Prairie—*Secretary-Treasurer:* Mr. A. E. Galway.
Hardisty—*Secretary:* Mr. L. Ecklund.
Jasper Park—*Secretary:* Mr. D. Webster.
Lethbridge—*Secretary-Treasurer:* Mr. E. R. Beard.
Mallaig—*Secretary-Treasurer:* Mr. O. E. Lafleur.
McLennan—*Secretary:* Mr. G. R. Stephenson.
Medicine Hat—*Secretary:* Mr. A. J. Rayment.
Peace River—*Secretary:* Mr. Frank Richardson.

Ponoka—*Secretary-Treasurer:* Mr. W. C. McIntosh.
St. Paul—*Secretary-Treasurer:* Mr. F. E. Belliveau.
Sylvan Lake—*Secretary:* Mr. W. Dunford.
Vegreville—*Secretary-Treasurer:* Mr. F. W. Laing.
Viking—*Secretary-Treasurer:* Mr. C. R. Smith.
Vilna—*Secretary:* Mr. Steve W. Elaschuk.
Waterways-McMurray—*Secretary:* Mr. J. Cripps.

BRITISH COLUMBIA

Abbotsford and District—*Secretary-Treasurer:* Mr. M. W. Stade.
Dawson Creek—*Secretary:* Mr. G. W. Thoreson.
Duncan—*Secretary:* Mr. Allan Hall.
Lake Cowichan—*Secretary:* Mrs. A. L. Pauls.
Marpole—*Secretary-Treasurer:* Mr. Stanley Gray.
Prince Rupert—*Secretary:* Mr. Edward Applewhaite.
Salmon Arm and District—*Secretary:* Mr. H. Robson.
Sidney North Saanich—*Secretary:* Mr. F. B. Leigh.
Smithers District—*Secretary:* Mr. R. L. Brash.
Ucluelet-Port Albion—*Secretary-Treasurer:* Mr. W. L. Hillier.
Victoria—*Managing Secretary:* Mr. Geo. I. Warren.
West Vancouver—*Secretary:* Mr. W. Munton.

MANITOBA

Brandon—*Secretary:* Mr. Arthur McGill.
Carberry—*Secretary:* Mr. John Crich.
Carman and Community—*Secretary-Treasurer:* Mr. H. J. Hunt.
Cranberry Portage—*Secretary:* Mr. H. V. Maxwell.
Deloraine—*Secretary-Treasurer:* Mr. H. Passmore.
Flin Flon—*Secretary:* Mr. Harry Miles.
Hamiota and District—*Secretary-Treasurer:* Mr. L. Harvey Jones.
Morden—*Secretary:* Mr. T. Ekstromer
Portage La Prairie—*Secretary-Treasurer:* Mr. Willard Keith.
The Pas—*Secretary-Treasurer:* Mr. L. C. Wilson.
Winnipeg—*Managing Secretary:* Mr. E. C. Gilliat.

NEW BRUNSWICK

Bath—*Secretary:* Mr. Chas. Gallacher.
Caraquet—*Secretary:* Mr. Elie Dumaresq.
Chipman—*Secretary:* Mr. Russell Smith.
Edmunston—*Secretary:* Mr. P. E. Pelletier.
Fredericton—*Secretary:* Mr. J. Dollard Hanlon.
Saint John—*Commissioner:* Mr. J. R. Dudley.
St.Quentin—*Secretary:* Mr. J. Eddie Leclerc.

NOVA SCOTIA

Shelburne—*Secretary-Treasurer:* Mr. Thomas C. Pearson.

ONTARIO

Ajax—*Secretary:* Mr. Robert McKnight.
Alliston—*Secretary:* Mr. F. W. Armstrong.
Alvinston—*Secretary:* Mr. A. A. Kerr.
Amherstburg—*Secretary:* Mr. John R. Morris.
Arnprior—*Secretary:* Mr. M. Campbell.
Atikokan—*Secretary:* Mr. C. G. Starr.
Aylmer and District—*Secretary:* Mr. Wes. Davis.
Barrie—*Secretary:* Mr. Bert Hill.
Belle River—*Secretary:* Mr. Eugene R. Ducharme.
Belleville—*Secretary:* Mr. Freeman E. Burrows.
Blenheim—*Secretary:* Dr. William C. Faust.
Bobcaygeon—*Secretary:* Mr. H. J. Murphy.
Bothwell—*Secretary-Treasurer:* Mr. W. Stuart-Smith.
Bowmanville—*Secretary:* Mr. Chas. Carter.
Brampton—*Secretary-Manager:* Mr. Archie Stephens.
Burlington—*Secretary-Treasurer:* Mr. Warren Nicholson.
Brockville—*Secretary:* Mr. F. J. E. Rogers.
Chesterfield—*Secretary:* Mr. H. L. Hough.
Clinton and District—*Secretary-Treasurer:* Mr. Basil Pocklington.
Cobourg—*Manager:* Mr. J. S. Smith.
Colborne—*Secretary:* Mr. Alfred Dove.
Comber—*Secretary:* Mr. L. D. Stocks.
Delhi—*Secretary-Treasurer:* Mr. Wilf Pollard.
Deseronto—*Secretary:* Mr. Earl Morrison.
Dorchester—*Secretary:* Mr. J. E. Rogers.
Dresden—*Secretary:* Mr. M. E. Manderson.
Dunnville—*Secretary:* Mr. Roy Reade.
Eastview—*Secretary:* Mr. J. P. Gosselin.
Emo—*Secretary:* Mr. Ross Linquist.
Essex—*Secretary-Treasurer:* Mr. Frank R. Bear.
Exeter—*Secretary:* Mr. Jas. P. Bowey.
Fergus—*Secretary:* Mr. A. F. W. Robertson.
Fort Frances—*Secretary:* Mr. W. A. Martin.
Fort William—*Secretary-Treasurer:* Mr. D. Murie.
Gananoque—*Manager:* Mr. W. J. Wilson.
Greater Fort Erie—*Managing Director:* Mr. Geo. Inglis.
Grimbsy—*Secretary-Treasurer:* Mrs. J. C. McCausland.
Hagersville—*Secretary-Treasurer:* Mr. J. A. Barr.
Hamilton—*Managing Secretary:* Mr. David A. Robbins.
Harriston—*Secretary:* Mr. C. E. Homuth.
Harrow—*Secretary:* Mr. Herbert F. Murvin.
Hearst—*Secretary:* Mr. T. Tremblay.
Hornepayne—*Secretary:* Mr. W. F. Quinn.
Hensall—*Secretary:* Mr. G. M. Drysdale.
Ingersoll—*Secretary:* Mr. Leigh H. Snider, K.C.
Kapuskasing—*Secretary:* Mr. T. H. Rosborough.
Kincardine—*Secretary:* Mr. R. G. Buckingham.
Kingston—*Secretary Manager:* Mr. J. M. Hughes.
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Milestone—*Secretary:* Mr. L. E. Parker.
Moose Jaw—*Commissioner:* Mr. G. O'Shaughnessy.
Regina—*Commissioner:* Mr. Alex Aitken.
Weyburn—*Secretary:* Mr. R. Schultz.

Canadian Automobile Chamber of Commerce—*Secretary:* J. L. Stewart, 1006, Lumsden Building, Toronto 1, Ontario.

Junior Chamber of Commerce of Canada—*Secretary:* N. H. Bakes, 537, Board of Trade Building, Montreal, Province of Quebec.

ASSOCIATED CHAMBERS OF COMMERCE

Northwestern Ontario—*Secretary:* Mr. C. W. King.
Ontario—*Secretary:* Mr. A. Conacher.

FINANCIAL AND ASSURANCE ASSOCIATIONS

Alberta Insurance Agents' Association—*Secretary:* J. C. Wainright, 26, Central Building, Calgary, Alberta.

All Canada Insurance Federation—*Secretary:* C. E. Hull, 410, St. Nicholas Street, Montreal, Province of Quebec.

Association of Superintendents of Insurance of the Provinces of Canada—*Secretary:* Roy B. Whitehead, K.C., Superintendent of Insurance, Room 449, Parliament Buildings, Toronto 2, Ontario.

British Columbia Bond Dealers' Association—*Secretary:* Alan D. Johnstone, 1040, West Pender Street, Vancouver, British Columbia.

British Columbia Credit Union League—*Secretary:* Miss J. Archibald, 96, East Broadway, Vancouver, British Columbia.

British Columbia Underwriters' Association—*Manager:* Kenneth M. Sabiston, 1021, Rogers Building, Vancouver, British Columbia.

Brunswick Credit Union Federation—*Secretary:* Frederick J. Morris, 99, Grange Street, Saint John, New Brunswick.

Canadian Automobile Theft Bureau—*Secretary:* W. J. Cox, Room 508, 410, St. Nicholas Street, Montreal, Province of Quebec.

Canadian Bankers' Association—*Secretary:* A. W. Rogers, K.C., Box 98, Outremont P.O., Montreal 8, Province of Quebec.

Canadian Bankers' Association (Pacific Subsection)—*Secretary:* A. D. McLeod, Room 4, 410, Seymour Street, Vancouver, British Columbia.

Canadian Bankers' Association (Western Subsection)—*Secretary:* S. E. Rae, 600, Lombard Building, Winnipeg, Manitoba.

Canadian Boiler and Machinery Underwriters' Association—*Secretary:* G. E. B. Wheeler, 1609, Queen Street West, Toronto 3, Ontario.

Canadian Credit Institute—*Secretary:* A. S. Crighton, 137, Wellington Street West, Toronto, Ontario.

Canadian Credit Men's Trust Association Limited—*General Manager:* A. S. Crighton, M.C.I., 137, Wellington Street West, Toronto, Ontario.

Canadian Credit Men's Trust Association Limited (Alberta Division)—*Manager:* Peter G. Smith, Institute Building, 10042, 109th Street, Edmonton, Alberta.

Canadian Credit Men's Trust Association Limited—(Maritime Division)—*Secretary:* Walter Wait, M.C.I., 147, Prince William Street, Saint John, New Brunswick.

Canadian Credit Men's Trust Association Limited—(Northern Saskatchewan Division)—*Address:* 51, York Building, Saskatoon, Saskatchewan.

Canadian Credit Men's Trust Association Limited—(Quebec Division)—*Secretary:* Charles P. Dumas, M.C.I., L.C.M.I., 760, Victoria Square, Montreal, Province of Quebec.

Canadian Federation of Insurance Agents—*Chairman:* D. A. Hansom c/o Lewis, Apedaile and Hanson, 465, St. John Street, Montreal, Province of Quebec.

Canadian Hail Underwriters' Association—*Secretary:* A. S. Simpson, 1015, McCallum-Hill Building, Regina, Saskatchewan.

Canadian Inland Underwriters' Association—*Secretary:* Wilson E. McLean, K. C., 357, Bay Street, Toronto 1, Ontario.

Canadian Life Insurance Officers' Association—*Secretary:* Bruce R. Power, 302, Bay Street, Toronto, Ontario.

Canadian Underwriters' Association—*Manager for Quebec:* A. Leslie Ham, 410, St. Nicholas Street, Montreal, Province of Quebec.
Manager for Ontario: J. J. O'Brien, 44, Victoria Street, Toronto 1, Ontario.

Chartered Insurance Institute—*Secretary:* H. A. L. Cockerell, B.A., F.C.I.I., The Hall, 20, Aldermanbury, London, E.C.2, England.

Credit Granters' Association of Canada—*Secretary:* Thomas Downie, 606, Randall Building, Vancouver, British Columbia.

Credit Union Federation of Manitoba—*Secretary:* W. C. Leitkie, 374, Des Meuron Street, Norwood, Manitoba.

Credit Union Federation of Saskatchewan—*Secretary:* Alex H. Turner, Room 309, Legislative Building, Regina, Saskatchewan.

Credit Union League of Alberta—*Secretary:* G. A. Swales, 830, Fifth Avenue Northeast, Calgary, Alberta.

Credit Union National Association, Incorporated (Canadian Branch)—*Secretary:* Gordon Smith, 427, Lister Building, Hamilton, Ontario.

Dominion Chartered Customs House Brokers' Association—*Secretary:* W. P. Smith, Suite 104, 19, Melinda Street, Toronto, Ontario.

Dominion Mortgage and Investments' Association—*Secretary:* J. E. Fortin, 302, Bay Street, Toronto 1, Ontario.

Fédération des Caisses populaires Desjardins—*Secretary:* Rev. Abbé Emile Turmel, 108, Côte du Passage, Levis, Province of Quebec.

Fraser Valley Merchants' Exchange Limited—*Secretary:* D. Stuart, 26, Lorne Street, New Westminster.

Insurance Brokers' Association of the Province of Quebec—*Secretary:* J. C. d'Auteuil, Room 907, 465, St. John Street, Montreal, Province of Quebec.

Insurance Institute of Nova Scotia—*Secretary:* John R. Garth, Box 532, Halifax, Nova Scotia

Insurance Institute of Toronto—*Secretary:* John A. Barron, C.L.U., 86, Adelaide Street East, Toronto, Ontario.

Investment Dealers' Association of Canada—*Secretary:* J. A. Kingsmill, 24, King Street West, Toronto, Ontario.

Land Mortgage Companies' Association of Saskatchewan—*Secretary:* D. J. Thoms, K.C., 1778, Scarth Street, Regina, Saskatchewan.

Life Insurance Institute of Canada—*Secretary:* T. M. Sargant, 112, King Street West, Toronto 1, Ontario.

Life Underwriters' Association of Canada—*Secretary:* L. W. Dunstall, 159, Bay Street, Toronto, Ontario.

Mortgage and Trust Companies' Association of British Columbia—*Secretary:* Ralph Holloway, 626, West Pender Street, Vancouver, British Columbia.

Mortgage Loans' Association of Manitoba—*Secretary:* F. E. Southam, 232, Portage Avenue, Winnipeg, Manitoba.

Mortgage Loans' Association of the Province of Alberta—*Secretary:* Fred Ellis, 319, Empire Building, Edmonton, Alberta.

Mutual Fire Underwriters' Association of Ontario—*Secretary:* Walter R. Cross, 32, North Street, Galt, Ontario.

New Brunswick Board of Underwriters—*Secretary:* H. M. Farmer, 22, King Street, Saint John, New Brunswick.

Nova Scotia Board of Insurance Underwriters—*Manager:* H. R. Snuggs, Tramway Building, 50, Sackville Street, Halifax, Nova Scotia.

Nova Scotia Credit Union League—*Managing Director:* J. C. Hill, Nova Scotia Credit Union League, Antigonish, Nova Scotia.

Ontario Credit Union League Limited—*Secretary:* George W. Scott, 152, Sutherland Drive, Toronto 12, Ontario.

Ontario Insurance Adjusters' Association—*Secretary:* W. R. Durance, 15, Wellington Street East, Toronto 1, Ontario.

Ontario Insurance Agents' Association—*Secretary:* Charles Priestman, 180, Adelaide Street West, Toronto 1, Ontario.

Prince Edward Credit Union League Limited—*Secretary:* Dr. J. C. Murphy, 202, Queen Street, Charlottetown, Prince Edward Island.

Quebec Credit Union League—*Secretary:* Miss B. Clarke, 205, Ile Bigras, Laval County, Province of Quebec.

Société mutuelle d'Assurances générales de l'U.C.C.—*Secretary:* Roger Brisson, 515, Viger Avenue, Montreal, Province of Quebec.

Trust Companies' Association of Ontario—*Secretary:* L. G. Goodenough, *c/o* Messrs. Leonard, Sinclair, Goodenough, Higginbottom and McDonnell, Barristers, etc., Room 1502, 320, Bay Street, Toronto 1, Ontario.

Western Canada Insurance Underwriters' Association—*Manager:* V. D. Hurst, 1100, Paris Building, Winnipeg, Manitoba.

HOTEL AND RESTAURANT ASSOCIATIONS

Alberta Hotel Associations—*Secretary:* F. Thomson, 306, Foothills Building, Calgary.

Association professionnelle des Hôteliers de la Province de Québec—*Secretary:* J. D. Loignon, Room 405, 4, Notre Dame Street East, Montreal, Province of Quebec.

British Columbia Coffee Shop Owners' Association—*Secretary:* F. N. Langford, Room 503, 615, West Pender Street, Vancouver, British Columbia.

British Columbia Hotels' Association—*Secretary:* J. J. Kahn, 810, Royal Trust Building, 626, West Pender Street, Vancouver, British Columbia.

Canadian Hotels Protective Association—*Secretary:* A. Montpetit, Room 220, 1434, St. Catherine Street West, Montreal, Province of Quebec.

Canadian Restaurant Association—*Secretary:* Mrs. F. G. Montgomery, 238, Bloor Street West, Toronto, Ontario.

Canadian Restaurant Association (Quebec Branch)—*Secretary:* Eddy Prevost, 627, Dorchester Street West Montreal, Province of Quebec.

Canadian Restaurant Association (Regina Branch)—*Secretary:* C. Protopappas, Ritz Café, Regina, Saskatchewan.

Canadian Restaurant Association (Windsor-Chatham Branch)—*Secretary-Treasurer:* George Jugloff, 2105, Ouellette Avenue, Windsor, Ontario.

Hotel and Restaurant Suppliers' Association, Incorporated—*Secretary:* W. T. Farrell, P.O. Box 44, Place d'Armes Station, Montreal, Province of Quebec.

Hotel Association of Canada—Ralph J. Haffey, 45, King Street East, Toronto, Ontario.

Hotel Association of the Province of Ontario—*Managing Director:* Ralph J. Haffey, 45, King Street East, Toronto, Ontario.

Hotel Greeters of America (Ontario Charter No. 50)—*Secretary:* George Denham, 21, Elvina Gardens, Toronto, Ontario.

Hotels' Association of Saskatchewan—*Secretary:* T. Kay MacKenzie, 36-38, Western Trust Building, Regina, Saskatchewan.

Hotels' Association of Western Canada—*Secretary:* J. J. Kahn, 809, Royal Trust Building, Vancouver, British Columbia.

Manitoba Hotel Association—*Secretary:* C. A. Tanner, 707, Lindsay Building, Winnipeg.

Province of Quebec Hotel Association, Incorporated—*Executive Secretary:* A. Stanley Saucier, Room 220, 1434, St. Catherine Street West, Montreal, Province of Quebec.

LIBRARIES

Alberta Library Association—*Secretary:* Miss Helen Farquharson, *c/o* University of Alberta Library, Edmonton, Alberta.

British Columbia Library Association—*Secretary:* Miss Anne Berry, Library, Parliament Buildings, Victoria, British Columbia.

Canadian Library Association—*Secretary:* Miss Elizabeth Homer Morton, Room 46, Central Chambers, 46, Elgin Street, Ottawa, Ontario.

Manitoba Library Association—*Secretary:* Miss Kathleen Coddington, Main Library, University of Manitoba, Fort Garry, Manitoba.

Maritime Library Association—*Secretary:* Miss Evelyn M. Campbell, Provincial Science Library, Halifax, Nova Scotia.

Ontario Library Association—*Secretary:* Mrs. J. H. Soper, 54, Prince Arthur Avenue, Toronto, Ontario.

Saskatchewan Library Association—*Secretary:* Bruce Peel, *c/o* Library, University of Saskatchewan, Saskatoon, Saskatchewan.

MANUFACTURING ASSOCIATIONS

CANADIAN MANUFACTURERS' ASSOCIATION

General Manager: J. T. Stirrett. *General Secretary:* E. G. Reburn, 1404, Montreal Trust Building, 67, Yonge Street, Toronto, Ontario.

Representative in Ottawa Office: C. Willis George, 205, Victoria Building.

BOX MAKING

Canadian Cooperage Association—*Secretary:* John C. Landreville, 133, Tecumseh Street, Toronto, Ontario.

Canadian Paper Box Manufacturers' Association—*Secretary:* C. V. Hodder, 159, Bay Street, Toronto, Ontario.

Interior Box Manufacturers' Association—*Secretary:* Hugh Dalton, 608, Marine Building, Vancouver, British Columbia.

Maritime Wooden Box Association—*Secretary:* J. R. Bigelow, P.O. Box 189, Amherst, Nova Scotia.

BRICK, TILE, GLASS AND PAINT

Brick and Tile Manufacturers' Association of Canada—*President:* Wm. C. McGolpin, Room 416, 57, Bloor Street West, Toronto, Ontario.

British Columbia Paint Club—*Secretary:* R. B. Deacon, Room 510, 119, West Pender Street, Vancouver, British Columbia.

Canadian Guild of Potters—*Secretary:* Charles Turner, 161, Glenrose Avenue, Toronto, Ontario.

Canadian Paint Varnish and Lacquer Association—*Secretary:* Geo. M. Edwards, 616, Sun Life Building, Montreal, Province of Quebec.

Montreal Paint and Varnish Production Clubs—*Secretary:* Doug. Rattery, *c/o* Canadian Industries, Ltd., 6830, Clanranald Avenue, Montreal, Province of Quebec.

Society of Plastics Industry (Canada), Incorporated—*Secretary:* Hodder and Moffitt, Room 918, 159, Bay Street, Toronto, Ontario.

Western Brick and Tile Association—*Secretary:* W. G. Worcester, Ceramic Department, University of Saskatchewan, Saskatoon, Saskatchewan.

CLOTHING, BOOTS AND SHOES

National Council of Clothing Manufacturers of Canada—*Secretary:* Walter R. Friedman, Room 1007, 1449, St. Alexander Street, Montreal 2, Province of Quebec.

Canadian Clothing Manufacturers' Association—*Secretary:* Geo. Scott, 1449, St. Alexander Street, Montreal 2, Province of Quebec.

Associated Clothing Manufacturers of the Province of Quebec, Incorporated—*Executive Director:* L. M. Lymburner, Jnr., 1509, Mountain Street, Montreal, Province of Quebec.

Canadian Association of Garment Manufacturers—*Secretary:* Thos. W. Learie, 165, Spadina Avenue, Toronto, Ontario.

Canadian Association of Work Garment Manufacturers—*Secretary:* Thos. W. Learie, 165, Spadina Avenue, Toronto, Ontario.

Canadian Corset Manufacturers' Association—*Secretary:* Thos. W. Learie, 165, Spadina Avenue, Toronto, Ontario.

Handbag Manufacturers' Guild—*Secretary:* Charles J. Sullivan, 165, Spadina Avenue, Toronto, Ontario.

Garment Manufacturers' Association of Western Canada—*Address:* 314, Hammond Building, Winnipeg, Manitoba.

Canadian Glove Manufacturers' Association—*Secretary:* Thos. W. Learie, 165, Spadina Avenue, Toronto, Ontario.

Association of Millinery Manufacturers—*Secretary:* J. Rothman, Room 7, 423, Mayor Street, Montreal, Province of Quebec.

Fur Manufacturers' Guild Incorporated—*Secretary:* H. I. Craimer, Room 11, 1430, Bleury Street, Montreal, Province of Quebec.

Manufacturers' Council of the Ladies' Cloak and Suit Industry of the Province of Quebec—*Secretary:* John Freedman, Room 725, 660, St. Catherine Street West, Montreal, Province of Quebec.

Shoe Manufacturers' Association of Canada, Incorporated—*Secretary:* Lionel Theoret, 1406, University Tower, Montreal, Province of Quebec.

Rural Shoe Manufacturers' Association of the Province of Quebec—*Secretary:* Paul E. Baillargeon, Saint Georges de Beauce, Province of Quebec.

Ontario Cap Manufacturers' Guild—*Secretary:* J. Kaplan, 414, Bay Street, Toronto, Ontario.

Sole Leather Tanners' Association—*Secretary:* H. E. Manning, K.C., Room 1306, 67, Yonge Street, Toronto 1, Ontario.

National Associated Women's Wear Bureau—*Secretary:* L. S. Bloom, Canadian Children's Wear, 3442, Stanley Street, Montreal, Province of Quebec.

National Associated Women's Wear Bureau (Ontario Division)—*Secretary:* R. Wolman, 334, Adelaide Street West, Toronto, Ontario.

Fashion Accessories Manufacturers' Association, Incorporated—*Secretary:* G. Webber, 486, St. John Street, Montreal, Province of Quebec.

EMPLOYERS' ASSOCIATIONS

Association patronale du Commerce de Québec, Incorporated—*Secretary:* J. Medard Ouellet, Baudet Building, Charest Boulevard, Quebec.

Employers' Association of Manitoba—*Secretary:* R. C. Clifford, 408, Nanton Building, Winnipeg, Manitoba.

Paper Box Employers' Association (Quebec)—*Secretary:* R. W. Gould, 513, Castle Building, Montreal.

Saskatchewan Employers' Association—*Secretary:* H. L. McLennan, Box 443, Regina, Saskatchewan.

FEED

British Columbia Feed Manufacturers' Association—*Secretary:* R. V. Robinson, 608, Marine Building, Vancouver, British Columbia.

Canadian Feed Manufacturers' Association (Alberta Division)—*Secretary:* A. G. Kirstine, *c/o* United Grain Growers, Ltd., P.O. Box 4203, South Edmonton, Alberta.

Canadian Feed Manufacturers' Association (Eastern Division)—*Secretary:* R. Raynauld, 822, Sherbrooke East, Montreal, Province of Quebec.

Canadian Feed Manufacturers' Association (Ontario Division)—*Secretary:* W. N. Hendrick, 287, MacPherson Avenue, Toronto, Ontario.

Canadian Feed Manufacturers' Association (Thunder Bay Division)—*Secretary:* E. G. Charnock, *c/o* Ogilvie Flour Mills Co., Ltd., P.O. Box 37, Fort William, Ontario.

Canadian Feed Manufacturers' National Council—*Secretary:* W. N. Hendrick, 293, MacPherson Avenue, Toronto, Ontario.

Saskatchewan Feed Manufacturers' Association—*Secretary:* R. H. Miner, *c/o* Saskatchewan Federated Co-operatives, Regina, Saskatchewan.

FISH AND FISH PREPARATION

Atlantic Cod Liver Oil Producers' Association—*Secretary:* A. G. Hale, Charles Albert Smith, Ltd., 123, Liberty Street, Toronto, Ontario.

Fisheries Council of Canada—*Secretary:* Clive Planta, Suite 806, 63, Sparks Street, Ottawa, Ontario.

Fisheries Research of Canada—*Secretary:* D. H. Sutherland, Department of Fisheries, Ottawa, Ontario.

Fish Packers' Association of the Maritime Provinces—*Secretary:* J. M. McKee, Canadian Atlantic Salt Fish Exporters' Association, 178, Hollis Street, Halifax, Nova Scotia.

Lake Erie Fishermen's Association—*Secretary:* W. H. McPherson, Port Stanley, Ontario.

Lake Huron and Georgian Bay Commercial Fisherman's Association—*Secretary:* Ralph MacPhatter, Kemble, Ontario.

Manitoba Fishermen's Association—*Secretary:* Mike Evans, 428, Main Street, Winnipeg, Manitoba.

New Brunswick Fish Canners' and Assemblers' Association—*Secretary:* F. Murray McLeod, Port Elgin, New Brunswick.

Ontario Federation of Commercial Fishermen—*Secretary:* Dr. A. O. Blackhurst, Port Dover, Ontario.

Pêcheurs Unis de Québec—*Secretary:* A. J. Boudreau, Gaspé, Province of Québec.

Prairie Fisheries' Federation—*Secretary:* G. H. Streuber, 404, Scott Block, Winnipeg.

Prince Edward Island Fisheries Federation—*Secretary:* George W. MacLeod, P.O. Box 34, Charlottetown, Prince Edward Island.

Quebec and Northern New Brunswick Fish Producers' and Exporters' Association—*Secretary:* J. E. Renaud, 2, Chauveau Avenue, Quebec.

Salmon Canners' Operating Committee—*Secretary:* J. Macdonald, Room 520, 119, West Pender Street, Vancouver, British Columbia.

FOOD AND BEVERAGE PREPARATIONS

Alberta Bottlers of Carbonated Beverages—*Secretary:* T. Ashenhurst, 507, Canadian Bank of Commerce Building, Edmonton, Alberta.

Alberta Master Bakers' Association, Incorporated—*Secretary:* F. A. Wilson, 199, East Eighth Avenue, Vancouver, British Columbia.

Allied Trades of the Baking Industry (Canada), Incorporated—*Secretary:* W. E. Floody, The Bakers' Journal, 21, King Street East, Toronto, Ontario.

Association of Quebec Bottlers of Carbonated Beverages—*Secretary:* Miss Therese Delorme, 5553, Park Avenue, Montreal, Province of Quebec.

British Columbia Bakers' Association—*Secretary:* F. A. Wilson, 199, East Eighth Avenue, Vancouver, British Columbia.

British Columbia Bottlers of Carbonated Beverages—*Secretary:* R. D. Cameron, Canadian Manufacturers' Association, 608, Marine Building, Vancouver, British Columbia.

Canadian Bottlers of Carbonated Beverages—*Secretary:* Joseph A. Whitmore, Suite 35, 10, Adelaide Street East, Toronto, Ontario.

Canadian National Millers' Association—*Secretary:* D. E. Murphy, 300, St. Sacrement Street, Montreal, Province of Quebec.

Canned Foods' Association of Ontario—*Secretary:* J. H. Moore, 202, Imperial Building, Hamilton, Ontario.

Canning Co-operative of Quebec—*Secretary:* J. E. Grise, 10, St. James Street West, Montreal, Province of Quebec.

Confectionery, Chocolate and Cocoa Industries of Canada—*General Manager:* F. T. W. Saunders, Room 506, 137, Wellington Street West, Toronto, Ontario.

Dominion Brewers' Association—*Secretary:* J. C. Binnie, 130, Queen Street, Ottawa, Ontario.

Dominion Retail Store Bakers' Association—*Secretary:* Charles H. L. Reid, 118, Felstead Avenue, Toronto 6, Ontario.

Independent Master Bakers' Association of Ontario—*Secretary:* Chas. H. Carter, 331 Bay Street, Toronto, Ontario.

Industrial and Development Council of Canadian Meat Packers—*Secretary:* E. S. Manning, Room 320, 200, Bay Street, Toronto 1, Ontario.

Ligue patronale des Boulangers indépendents—*Secretary:* Lorenzo Lebel, 2412, Letourneux Street, Montreal, Province of Quebec.

Manitoba Bottlers of Carbonated Beverages—*Secretary:* E. R. Kennedy, 408, Power Building, Winnipeg, Manitoba.

Maritime Bakers' Association—*Secretary:* A. C. Shaw, Waterloo Street, Saint John, New Brunswick.

Maritime Bottlers of Carbonated Beverages—*Secretary:* H. C. Tennant, c/o H. F. Tennant, Ltd., Amherst, Nova Scotia.

National Council of the Baking Industry—*Secretary:* R. P. Sparks, Room 512, Victoria Building, 140, Wellington Street, Ottawa, Ontario.

Ontario Bakers' Association—*Secretary:* Robert H. Ackert, 10, Macnab Street South, Hamilton, Ontario.

Ontario Brewers' Association—*Secretary:* J. L. Percy, 805, Atlas Building, 350, Bay Street, Toronto, Ontario.

Ontario Carbonated Beverage Association—*Secretary:* David A. Powell, c/o Wentworth Dry Beverages, Ltd., 16, Myrtle Avenue, Hamilton, Ontario.

Ontario Jam Association—*Secretary:* J. H. Moore, 202, Imperial Building, Hamilton, Ontario.

Producteurs de Sucre d'Erable de Québec—*Secretary:* Rosaire Prefontaine, 5, Begin Avenue, Levis, Province of Quebec.

Quebec Brewers' Association—*Secretary:* Henri-George Gonthier, Suite 521, Dominion Square Building, Montreal, Province of Quebec.

Saskatchewan Bakers' Association—*Secretary:* W. B. Cronk, 530, Third Avenue, North Saskatoon, Saskatchewan.

Saskatchewan Bottlers of Carbonated Beverages—*Secretary:* M. Sandomirsky, Montreal and Eleventh Avenue, Regina, Saskatchewan.

Tea and Coffee Association of Canada, Incorporated—*Secretary:* F. D. Tolchard, 37, King Street East, Toronto 1, Ontario.

Western Canada Brewers' Association—*Secretary:* Bruce H. Richardson, c/o Pelissier's Brewery, Ltd., Winnipeg, Manitoba.

Wine Producers' Association—*Secretary:* W. Marshal Cleland, P.O. Box 307, St. Catherines, Ontario.

FURNITURE AND MUSICAL INSTRUMENTS

Canadian Music Trades' Association—*Secretary:* Fred A. Boddington, 111, Church Street, Toronto, Ontario.

Canadian Piano and Organ Manufacturers' Association—*Secretary:* John A. Fullerton, 175, Jarvis Street, Toronto, Ontario.

Furniture Manufacturers' Association—*Secretary:* C. V. Fessenden, 204, Richmond Street, Toronto 1, Ontario.

Upholstered Furniture Manufacturers' Association of British Columbia—*Secretary:* J. M. Richardson, Royal Trust Building, 626, West Pender Street, Vancouver, British Columbia.

Furniture Manufacturers' Association (Quebec Branch)—*Secretary:* R. W. Gould, 903, Castle Building, Montreal, Province of Quebec.

Furniture Manufacturers' Section, British Columbia Division, C.M.A.—*Secretary:* J. A. Rankin, c/o Canadian Manufacturers' Association, Incorporated, 608, Marine Building, Vancouver, British Columbia.

HORSESHOERS

Corporation de la Maréchalerie de la Province de Québec, Incorporated—*Secretary:* J. Charles Morel, 510, Third Avenue, Quebec.

Manitoba Blacksmiths', Horseshoers' and Woodworkers' Association—*Secretary:* J. Chalmers, 349, Nairn Avenue, Winnipeg.

Saskatchewan Welders', Blacksmiths' and Repairmen's Association—*Secretary:* A. Shaw, Bulyea, Saskatchewan.

LUMBER AND MILLWORK

Alberta Forest Products' Association—*Secretary:* D. K. McKay, No. 1, McLeod Building, Edmonton, Alberta.

Association des Manufacturiers et Marchants de Bois du Québec—*Secretary:* F. Houde, Room 519, 620, Cathcart Street, Montreal, Province of Quebec.

British Columbia Loggers' Association, Incorporated *Secretary:* John N. Burke, 1518, 510, West Hastings Street, Vancouver, British Columbia.

British Columbia Lumber Manufacturers' Association—*Secretary:* L. R. Andrews, 718, Metropolitan Building, Vancouver, British Columbia.

British Columbia Lumber Survey, Limited—*Secretary:* M. B. Dix, 1490, West Broadway, Vancouver, British Columbia.

Canadian Lumbermen's Association—*Secretary:* W. J. LeClair, 201, Victoria Building, Ottawa, Ontario.

Consolidated Red Cedar Shingle Association of British Columbia—*Secretary:* G. S. Raphael, 509, Metropolitan Building, Vancouver, British Columbia.

Interior Lumber Manufacturers' Association—*Secretary:* Hugh Dalton, 608, Marine Building, Vancouver, British Columbia.

Mainland Millwork Institute—*Secretary:* Will Goddard, 175, East Broadway, Vancouver, British Columbia.

Maritime Lumber Bureau—*Secretary:* J. R. Bigelow, P.O. Box 189, Amherst, Nova Scotia.

New Brunswick Forest Products' Association—*Secretary:* W. E. Anderson, 32, King Square, Saint John, New Brunswick.

Northern Interior Lumbermen's Association (Vancouver Branch)—*Secretary:* J. H. Ruddock, 608, Marine Building, Vancouver, British Columbia.

Nova Scotia Forest Products' Association—*Secretary:* John R. Bigelow, P.O. Box 189, Amherst, Nova Scotia.

Quebec Forest Industries' Association, Limited—*Secretary:* W. A. E. Pepler, 65, St. Anne Street, Quebec, Province of Quebec.

Truck Loggers' Association—*Secretary:* F. H. Adames, 410, Dominion Building, 207, West Hastings Street, Vancouver, British Columbia.

Vancouver Millwork Manufacturers' Association—*Secretary:* W. F. Brownlee, 1955, Broadway West, Vancouver, British Columbia.

Western Canada Sash and Door Association (Alberta Branch)—*Secretary:* A. J. Brown, *c/o* W. H. Clark Lumber Co., Edmonton, Alberta.

Western Canada Sash and Door Association (Saskatchewan Branch)—*Secretary:* V. R. Carver, *c/o* Sterling Hardward and Millwork Co., Ltd., Saskatoon, Saskatchewan.

Western Lumber Manufacturers' Association of Canada—*Secretary:* Earl C. King, 904, Credit Foncier Building, Vancouver, British Columbia.

METAL TRADES

American Electroplaters' Society (Montreal Branch)—*Secretary:* Wm. Glover, 754, Second Avenue, Verdun, Province of Quebec.

American Electroplaters' Society (Toronto Branch)—*Secretary:* Leonard W. Wray, 105, Ronan Avenue, Toronto 12, Ontario.

American Foundrymen's Association, Incorporated (Eastern Canada and Newfoundland Chapter)—*Secretary:* Robert E. Cameron, Room 724, Canada Cement Company Building, Montreal, Province of Quebec.

American Foundrymen's Association (Ontario Chapter)—*Secretary:* G. L. White, Westman Publications, Ltd., Room 605, 137, Wellington Street West, Toronto 1, Ontario.

Canadian Founders' and Metal Trades' Association—*Secretary:* S. J. Frame, 21, King Street East, Toronto 1, Ontario.

Canadian Machine Shop Owners' Association—*Secretary:* R. W. Gould, 903, Castle Building, Montreal, Province of Quebec.

Canadian Steel Boiler Institute—*Secretary:* Jos. T. Crowder, 444, Confederation Life Building, 17, Queen Street East, Toronto, Ontario.

PHARMACEUTICAL AND PERFUMERY

Canadian Pharmaceutical Manufacturers' Association—*Secretary:* A. E. Laverty, Room 604, Bank of Toronto Building, 414, St. James Street, Montreal, Province of Quebec.

Proprietary Association of Canada—*Secretary:* A. E. Laverty, Room 604, Bank of Toronto Building, 414, St. James Street, Montreal, Province of Quebec.

Toilet Goods Manufacturers' Association—*Secretary:* A. E. Laverty, 414, St. James Street, Montreal, Province of Quebec.

PULP AND PAPER

Canadian Pulp and Paper Association—*Head Office:* 2279,Sun Life Building, Montreal, Province of Quebec.

Canadian Pulp and Paper Association (Western Branch)—*Secretary:* Leander Manley, 805, Dominion Bank Building, Vancouver, British Columbia.

Central Pulpwood Association—*Secretary:* A. McIntosh, 450, Somerset Building, Winnipeg, Manitoba.

Newsprint Association of Canada—*Secretary:* J. M. Savage, 2280, Sun Life Building, Montreal, Province Of Quebec.

Pulp and Paper Research Institute of Canada—*Secretary:* Arthur A. Scott, 3420, University Street, Montreal 2, Province of Quebec.

Pulpwood Committee of the Pulp and Paper Industry of Canada—*Secretary:* W. A. E. Pepler, 707, Sun Life Building, Montreal, Province of Quebec.

RADIO AND ELECTRICAL

Canadian Association of Radio and Appliance Dealers—*Secretary:* Andrew G. Frame, Suite 2, 86, Adelaide Street East, Toronto 1, Ontario.

Canadian Electrical Association—*Managing Director:* B. C. Fairchild, 704, Tramways Building, Montreal 1, Province of Quebec.

Canadian Electrical Manufacturers' Association—*Secretary:* H. L. Wright, 204, Richmond Street West, Toronto, Ontario.

Canadian Radio Technical Planning Board—*Secretary:* S. D. Brownlee, Room 703, 159, Bay Street, Toronto, Ontario.

Manitoba Electrical Association—*Secretary:* Paul Kane, 307, McIntyre Block, Winnipeg, Manitoba.

Manitoba Radio Service Association—*Secretary:* G. H. Sloker, 771, Portage Avenue, Winnipeg, Manitoba.

Ontario Association of Radio and Appliance Dealers—*Secretary:* Andrew G. Frame, Suite 2, 86, Adelaide Street East, Toronto 1, Ontario.

Radio Manufacturers' Association of Canada—*Secretary:* S. D. Brownlee, Room 301, 159, Bay Street, Toronto 1, Ontario.

RUBBER

Rubber Association of Canada—*Secretary:* Greig B. Smith, Room 210-11, 159, Bay Street, Toronto, Ontario.

TEXTILES

Canadian Allied Textile Trades' Association—*Secretary:* W. J. Cannon, 217, Bay Street, Toronto, Ontario.

Canadian Association of Textile Colourists and Chemists (Quebec Section)—*Secretary:* R. W. Redston, *c/o* Hubbard Felt Co., Ltd., 425, Marion Avenue, Montreal East, Province of Quebec.

Canadian Woollen and Knit Goods Manufacturers' Association—*Secretary:* Douglas Hallam, 80, Richmond Street West, Toronto, Ontario.

Cotton Institute of Canada—*Secretary:* Douglas Hallam, 80, Richmond Street West, Toronto, Ontario.

Federation of Textile Technical Associations—*Secretary:* P. W. Webb, 1220, University Tower, 660, St. Catherine Street West, Montreal, Province of Quebec.

Primary Textiles' Institute—*Secretary:* Douglas Hallam, 80, Richmond Street West, Toronto, Ontario.

Silk and Rayon Manufacturers' Association—*Secretary:* I. Greenberg, Room 724, 660, St. Catherine Street, Montreal, Province of Quebec.

Silk Association of Canada—*Secretary:* Douglas Hallam, 80, Richmond Street West, Toronto, Ontario.

Textile Society of Canada (Eastern Division)—*Secretary:* Archie H. Wood, 1220, University Tower Building, Montreal, Province of Quebec.

Textile Society of Canada (Western Division)—*Secretary:* A. E. Cherrington, *c/o* Cosmos Imperial Mills, Ltd., Sherman Avenue North, Hamilton, Ontario.

OTHER MANUFACTURERS

Canadian Association of Ice Industries, Incorporated—*Secretary:* K. C. McCrea, 389, Park Street, Niagara Falls, Ontario.

Canadian Brush Manufacturers' Association—*Secretary:* W. J. Cannon, 217, Bay Street, Toronto, Ontario.

Canadian Business Equipment Manufacturers' Association—*Secretary:* F. G. McGinn, *c/o* Underwood, Ltd., 135, Victoria Street, Toronto 1, Ontario.

Canadian Fan Manufacturers' Association—*Secretary:* L. O. Monroe, P.O. Box 275, Windsor, Ontario.

Canadian Mineral Wool Manufacturers' Association—*Secretary:* F. A. Bromley, P.O. Box 82, Terminal " A " Post Office, Toronto 1, Ontario.

Canadian Playthings Manufacturers' Incorporated—*Secretary:* John C. Risk, 38, King Street West, Toronto 1, Ontario.

Canadian Refrigeration Manufacturers' Association—*Secretary:* J. H. Moore, 202, Imperial Building, Hamilton, Ontario.

Ontario Frosted Food Locker Association—*Secretary:* H. S. Parish, 137, Wellington Street West, Toronto, Ontario.

Plant Food Council of Ontario—*Secretary:* L. A. Westcott, *c/o* William Stone Sons, Ltd., Ingersoll, Ontario.

Tanners' Association of Canada—*Secretary:* R. N. McCormick, 1404, Montreal Trust Building, 67, Yonge Street, Toronto, Ontario.

MINING ASSOCIATIONS

Alberta and North West Chamber of Mines and Resources—*Secretary:* L. E. Drummond, Consulting Engineer, McLeod Building, Edmonton, Alberta.

Alberta Petroleum Association—*Secretary:* E. W. Kolb, 605, Lancester Building, Calgary, Alberta.

British Columbia and Yukon Chamber of Mines—*Manager:* Frank E. Woodside, 790, Dunsmuir Street, Vancouver, British Columbia.

Canadian Coal Operators' Association—*Acting General Manager:* C. Gerow, M.B.E., 283, Bank Street, Ottawa, Ontario.

Canadian Diamond Drilling Association—*Secretary:* W. G. Chipp, 710, Excelsior Life Building, 36, Toronto Street, Toronto, Ontario.

Canadian Gas Association—*Secretary:* George W. Allen, 7, Astley Avenue, Toronto 5, Ontario.

Canadian Metal Mining Association—*Address:* V. C. Wansbrough, Room 901, Central Building, 45, Richmond Street West, Toronto, Ontario.

Domestic Coal Operators' Association of Western Canada—*Secretary:* V. A. Cooney, B.A., L.L.B., P.O. Box 170, Drumheller, Alberta.

Drumheller Coal Operators' Association—*Secretary:* V. A. Cooney, B.A., L.L.B., P.O. Box 170, Drumheller, Alberta.

Manitoba Chamber of Mines—*Secretary:* J. P. de Wet, 205, Montreal Trust Building, Winnipeg, Manitoba.

Mid-West Mining Association—*Secretary:* F. D. Shepherd, 306, Great West Permanent Building, 356, Main Street, Winnipeg, Manitoba.

Mining Association of British Columbia—*Secretary:* E. V. Ablett, 837, West Hastings Street, Vancouver. British Columbia.

Natural Gas and Petroleum Association of Canada—*Secretary:* Jos. McKee, Gas Building, Chatham, Ontario.

New Brunswick Coal Producers' Association—*Secretary:* Percival Streeter, Minto, New Brunswick.

Northern Alberta Coal Operators' Association—*Secretary:* Miss H. D. Hyndman, 209, Williamson Building, Edmonton, Alberta.

Ontario Mining Association—*Secretary:* S. W. McIntosh, 320, Bay Street, Toronto.

Prospectors' and Developers' Association—*Secretary:* George A. MacMillan, Room 428, 67, Yonge Street, Toronto, Ontario.

Western Canada Bituminous Coal Operators' Association—*Secretary:* W. C. Whittaker, 516-520, Loughheed Building, Calgary, Alberta.

Western Canada Fuel Association—*General Manager:* C. P. Burgess, 316, Nanton Building, Winnipeg, Manitoba.

Western Quebec Mining Association—*Secretary:* Eugene Larochelle, 5116, Chateau Frontenac, Quebec City, Province of Quebec.

MUNICIPAL ASSOCIATIONS

Associated Committee of Rural Municipal Secretary-Treasurers—*Secretary:* G. C. Walsh, 1840, Cornwall Street, Regina.

Association of Canadian Fire Marshals—*Secretary:* W. L. Clairmont, 505, Plaza Building, Ottawa, Ontario.

Association of Mining Municipalities of Northern Ontario—*Secretary:* Pat H. Murphy, South Porcupine, Ontario.

Association of Municipal Electrical Utilities—*Secretary:* W. R. Harmer, Departmental Engineer, Promotion Department, H.E.P.C. of Ontario, 620, University Avenue, Toronto, Ontario.

Association of Ontario Mayors and Reeves—*Secretary:* Seely W. Eakins, 209, City Hall, Toronto, Ontario.

Canadian Federation of Mayors and Municipalities—*Executive Director:* Miss Jessica A. Allan, Office 22, Mount Royal Hotel, Montreal, Province of Quebec.

Chief Constables' Association of Canada—*Secretary:* Geo. A. Shea, O.B.E., Room 312, Central Station, Montreal, Province of Quebec.

Dominion Association of Fire Chiefs—*Secretary:* Chief Allan H. Clark, Fire Department, Lakefield, Ontario.

Eastern Ontario Municipal Electrical Association—*Secretary:* W. H. Powell, 19, Queen Street, Kingston, Ontario.

Municipal Finance Officers' Association of the United States and Canada (Ontario Chapter)—*Secretary:* K. Grant Crawford, Institute of Local Government, Kingston, Ontario.

Municipal Officers' Association of British Columbia—*Secretary:* L. Leslie Brice, Box 270, Chilliwack, British Columbia.

Ontario Association of Rural Municipalities—*Secretary:* W. S. Milmine, Stoney Creek, Ontario.

Ontario Municipal Association—*Secretary:* K. Grant Crawford, Institute of Local Governments, Queen's University, Kingston, Ontario.

Ontario Municipal Electric Association—*Secretary:* Mrs. K. Kestell, 89, Quebec Street East, Guelph, Ontario.

Police Association of Ontario—*Secretary:* Arthur Webster, Inspector, Police Department, Forest Hill, 641, Eglinton Avenue, Toronto, Ontario.

Saskatchewan Association of Rural Municipalities—*Secretary:* C. G. Bryden, 403, McCallum Hill Building, Regina, Saskatchewan.

South Timiskaming Municipal Association—*Secretary:* Geo. W. Tucker, R.R. 3, New Liskeard, Ontario.

Union des Municipalités de la Province de Québec—*Secretary:* Gaston Duquette, Rooms 617-628, 132, St. James Street West, Montreal, Province of Quebec.

Union of Alberta Municipalities—*Secretary:* J. H. Galbraith, Ponoka, Alberta.

Union of Nova Scotia Municipalities—*Secretary:* Judge Arthur Roberts Bridgewater, Lunenburg Co., Nova Scotia.

RECENT BOOKS ON CANADA

Painters of Quebec by Marius Barbeau (Ryerson $1). The latest publication in the Canadian Art Series, which now numbers 12 volumes.

The St. Lawrence by Henry Beston 1942 (Oxford $3). " The first third is concerned with the past, the second with the present, and the last third with the almost timeless forces of nature neighbouring the river and its coasts." A handsome book with illustrations by A. Y. Jackson.

Sunrise for Peter by William R. Bird, 1946 (Ryerson $2·50). O'Brien starred each of these as among the

Best Short Stories for the year in which it was first published.

Now is Time by Earl Birney, 1945 (Ryerson $1·50). One of our important poets expresses (among other things) his reaction to the War, in poems as high in quality as his " David."

On Canadian Poetry by E. K. Brown, 1945 (Ryerson $2·25).

Grey Ship Moving by Charles Bruce, 1945 (Ryerson $1·50). Maritime poems.

Histoire de la Litterature Canadienne Française par Berthelot Brunet, 1946 (Editions de l'Arbre $1·50).

Canadian Painters. Edited by Donald W. Buchanan, 1945 (Phaidon press $9). From Paul Kane to the Group of Seven. Excellent illustrations.

Where the High Winds Blow by Bruce D. Campbell, 1946 (Saunders $3·75). A young man's adventures at Hudson's Bay posts recollected in a German prison camp.

Growing Pains : the autobiography of Emily Carr, 1946 (Oxford $3·50). The British Columbia artist and author tells of her adventures in two arts and shows herself master of both.

Day of Wrath by Phillip Child, 1945 (Ryerson $3). In Hitler's Germany a young Jew seeks the meaning of a life which can hold the persecution he daily endures.

Canadian Art : its origin and development by William Colgate, 1943 (Ryerson $5).

Turf Smoke : a fable of two countries by John Coulter 1945 (Ryerson $2). A fantasy in which an Ulster family, its cabin and chickens, is transported to New York's East River.

Dominion of the North : a history of Canada by Donald G. Creighton, 1944 (Allen $4·50).

The Voice of Dafoe : a selection of editorials on collective security, 1931-1944 by John W. Dafoe, 1945 (Macmillan $3). From the Winnipeg Free Press.

Klondike Mike : an Alaskan odyssey by Merrill Denison 1943 (McClelland and Stewart $4). The tough and adventurous days of the Gold Rush.

Twentieth Century Verse. Chosen by Ira Dilworth, 1945 (Clarke, Irwin $3). Many Canadians are represented as well as the outstanding poets of other lands.

Partner in Three Worlds by Dorothy Duncan, 1944 (Harper $3·50). Biography of Jan Rieger, a Czechoslovakian, who knew three widely varied cultures before joining the Canadian army.

Grand River by Mabel Dunham, 1945 (McClelland and Stewart $3). Story of the settlement and development of this Ontario river valley from early Indian days.

The Spirit of Canadian Democracy : a collection of Canadian writings from the beginning to the present day, selected by Margaret A. Fairley, 1945 (Progress Publishing Co. $3).

The Happy Time by Robert Fontaine, 1945 (Musson $2·50). Irresponsible uncles give zest to a boyhood in Ottawa.

Johnny Chinook : tall tales and true from the Canadian West by Robert E. Gard, 1945 (Longmans $3·50).

Earth and High Heaven by Gwethalyn Graham, 1944 (Clark, Irwin $3). Study of racial antagonism in modern Montreal focused in the love story of a Jew and a Gentile.

Les Isles de la Nuit par Alain Grandbois, 1944 (Lucine Parizeau $2). Subjective poetry in the modern tradition by a young cosmopolitan.

In Search of Myself by Frederick Philip Grove, 1946 (Macmillan $4). From wealth in Sweden through dish washing in Toronto to eminence in Canadian literature.

Le Survenant : roman par Germaine Guèvremont, 1945 (Beauchemin $1·25). To the village of Chenal du Moine, Le Venant brings the unrest of the exotic outside world.

Ten Years to Alamein by Matthew Halton, 1944 (Saunders $3·50). " A record of some of a newspaperman's adventures and conclusions during the years of democracy's shame and in a far wasteland in later years when brave men were expiating the shame."

Brave Harvest : the life story of E. Cora Hind by Kennethe M. Haig, 1945 (Allen $2·50). An expert on wheat and cattle, a journalist and a " character."

The Boy I Left Behind Me by Stephen Leacock, 1946 (McClelland and Stewart $2·50). His childhood and youth in England and on a Canadian farm.

Montreal, seaport and city by Stephen Leacock, 1942 (Doubleday $5). History with the Leacock touch.

Eskimo Summer by Douglas Leechman, 1945 (Ryerson $2·50). On a one-man anthropological expedition to the Button Islands the author is befriended by an Eskimo family.

Au Pied de la Pente Douce : roman par Roger Lemelin 1944 (Editions de l'Arbre $1·50). The lives of a group of working people are gently and cleverly satirised.

Two Thousand Miles of Gold by James B. MacDougall, 1946 (McClelland and Stewart $3·50). A judicious mixture of facts and figures with exciting mining anecdotes.

Two Solitudes by Hugh McLennan, 1945 (Collins $3). A novel of conflicting cultures in Quebec.

Gauntlet to Overlord : The story of the Canadian army by Ross Munro, 1945 (Macmillan $3).

Thirty Acres by Phillippe Panneton, 1940 (Macmillan $2·50). This story of a habitant was first published in Paris as " Trente arpents."

A Canadian People by Lorne Pierce, 1945 (Ryerson $1·50). " To set down once and for all what I believe, and with all the energy I possess."

Collected Poems by E. J. Pratt, 1944 (Macmillan $3). The major works of an internationally recognised poet whose latest poem is " They are returning ", 1945 (Macmillan 50 cents).

Pride's Fancy by Thomas H. Raddall, 1946 (McClelland and Stewart $2·75). A romantic tale of Nova Scotia privateers during the Napoleonic wars.

We Keep a Light by Evelyn Richardson, 1945 (Ryerson $3·50). Family life in an island lighthouse.

The Incomplete Anglers by John D. Robins, 1943 (Collins $3). A rollicking fishing trip in Algonquin Park.

A Pocketful of Canada. Edited by John D. Robins, 1946 (Collins $3). Short selections, serious and gay, express an engaging Canada.

Bonheur D'Occasion par Gabrielle Roy, 1945 (Société des Editions Pascal $3). A faithful delineation of the French-Canadian working class in war time, lifted into literature by its perception, its cynical pity and artistry of style.

Overture : poems by F. R. Scott, 1945 (Ryerson $2). " One of the best volumes of poetry this country has seen," E. K. Brown.

Ploughman of the Moon : an adventure into memory by Robert W. Service, 1945 (McClelland and Stewart $4·50).

The Book of Canadian Poetry : a critical and historical anthology. Edited with an introduction and notes by A. J. M. Smith, 1943 (Gage $4).

Driftwood Valley by Theodora C. Stanwell-Fletcher, 1946 (Little, Brown $4). Surrounded by the violence and the endless enchantment of the British Columbia wilderness two young naturalists were led by their scientific ardour to face real hardships.

Contes Pour un Homme Seul par Yves Thériault, 1944 (Editions de l'Arbre $1·25). The style of these stories of a small Quebec village recalls both Steinbeck and De Maupassant.

Plowing the Arctic : being an account of the voyage of the R.C.M.P. " St. Roch " through the Northwest passage from west to east by Joy Tranter, 1945 (Longmans $3·50).

The French-Canadian Outlook: a brief account of the unknown North Americans by Mason Wade, 1946 (Viking $2·50). A just and sympathetic treatment.

This list has been compiled by the following group from the Reference and Circulation Divisions of the Toronto Public Libraries: Dorothy Mees, Donalda Putnam, Katherine Warnock, Martha Shepard (Convener).

THEATRE AND MOTION PICTURE ASSOCIATIONS

Alberta Theatres' Association—*Secretary:* L. J. Chown, Strand Theatre, Calgary.

Canadian Motion Picture Distributors' Association—*Secretary:* E. H. Wells, Suite 305-6, 229, Yonge Street, Toronto, Ontario.

Manitoba Motion Picture Exhibitors' Association—*Secretary:* B. K. Beach, 300, New Hargrave Building, Winnipeg, Manitoba.

Motion Picture Theatres' Association of Ontario—*Secretary:* H. C. D. Main, Suite 1210, 21, Dundas Square, Toronto, Ontario.

National Film Society of Canada—*Secretary:* Gordon Adamson, 172, Wellington Street, Ottawa, Ontario.

Quebec Allied Theatrical Industries, Incorporated—*Secretary:* 323, University Tower Building, 660, St. Catherine Street West, Montreal, Province of Quebec

CANADIAN DAILY NEWSPAPERS

ALBERTA

City	*Name of Paper*	*Circulation*	*Publisher and Editor*
CALGARY	Albertan (*m*) (*I*)	21,385	Albertan Pub. Co., Ltd. A. M. Raymond (*e*).
	Herald (*e*) (*I*)	44,645	The Southam Co., Ltd. A. H. Bill (*e*).
EDMONTON	Bulletin (*e*) (*I*)	18,666	Alberta Free Press, Ltd. John Howey (*e*).
	Journal (*e*) (*I*)	45,973	Edmonton Journal, Div. of The Southam Co. J. Dixon Craig (*e*).
LETHBRIDGE	Herald (*e*) (*I-L*)	10,725	Lethbridge Herald Co., Ltd. W. A. Buchanan (*e*).
MEDICINE HAT	News (*e*) (*Li*)	3,517	Medicine Hat News Ltd. W. H. Hogle (*e*).

BRITISH COLUMBIA

City	*Name of Paper*	*Circulation*	*Publisher and Editor*
NANAIMO	Free Press (*e*) (*I*)	5,115	Nanaimo Free Press Ltd. W. A. Barnes (*e*).
NELSON	News (*m*) (*I*)	7,132	News Pub. Co., Ltd. F. F. Payne (*e*).
NEW WESTMINSTER	British Columbian (*e*) (*I*)	6,672	Columbian Co., Ltd. R. A. McLellan (*e*).
PRINCE RUPERT	News (*e*) (*I*)	2,824	Prince Rupert Daily News Ltd. G. A. Hunter (*me*).
TRAIL	Times (*e*) (*I*)	4,199	Trail Times Ltd. E. L. Costello (*e*).
VANCOUVER	News-Herald (*m*) (*I*)	40,714	News-Herald Ltd. Kenneth Drury (*e*)
	Province (*e*) (*I*)	95,570	The Vancouver Daily Province, Div. The Southam Co., Ltd. H. H. C. Anderson (*e*).
	Sun (*e*) (*I-L*)	130,966	Sun Pub. Co., Ltd. Roy W. Brown (*e*).
VICTORIA	Colonist (*m ex Mon*)	22,248	Colonist Pub. Co., Ltd. H. Sandham Graves (*e*).
	Colonist (*Sunday ed*)	25,973	
	Times (*e*) (*Li*)	19,324	Times P. & P. Co., Ltd. H. P. Hodges (*e*).

MANITOBA

City	*Name of Paper*	*Circulation*	*Publisher and Editor*
BRANDON	Sun (*e*) (*I*)	6,075	The Sun Publishing Co., Ltd. William Noakes (*e*).
PORTAGE LA PRAIRIE	Graphic (*e*) (*I*)	1,994	Graphic Printing Co., Ltd. W. H. Vopni (*e*).
THE PAS	Northern Mail (*e*) (*I*)	1,608	Northern Mail Ltd. Robert Taylor (*e*).
WINNIPEG	Free Press (*e*) (*I-L*)	92,664	Winnipeg Free Press Co., Ltd. Grant Dexter (*exec-e*).
	Tribune (*e*) (*I*)	53,798	Winnipeg Tribune, Div. of The Southam Co., Ltd. Carlyle Allison (*e*).
	Citizen (*m*) (*I*)	25,000	Winnipeg Citizen Cooperative Pub. Co. W. H. Metcalfe (*me*).

City	*Name of Paper*	*Circulation*	*Publisher and Editor*
	NEW BRUNSWICK		
FREDERICTON	Gleaner (*e*)		Gleaner, Ltd.
MONCTON	Times (*m*) (*I-L*)	8,517	Moncton Publishers, Ltd. A. J. Hicks (*e*).
	Transcript (*e*)	9,569	
	Combined daily (*me*)	18,086	
SAINT JOHN	Telegraph-Journal (*m*) (*I*)	24,197	New Brunswick Pub. Co., Ltd. H. G. Christie (*e*).
	Times-Globe (*e*)	20,320	
	Combined Daily (*me*)	44,517	
	NOVA SCOTIA		
AMHERST	News (*e*) (*P-C*)	2,234	News-Sentinel Ltd. Norman S. Sandford (*e*).
GLACE BAY	Gazette (*e*) (*La-CCF*)	4,280	United Mine Workers of America. Dist. 26, F. Gates (*me*).
HALIFAX	Chronicle (*m*) (*Li*)	14,153	Chronicle Co., Ltd. Barton E. Robinson (*e*).
	Star (*e*)	10,339	
	Combined Daily (*me*)	24,492	
	Herald (*m*) (*I*)	54,068	The Halifax Herald, Ltd. E. E. Kelley (*e*).
	Mail (*e*)	34,490	
	Combined Daily (*me*)	88,558	
NEW GLASGOW	News (*e*) (*P-C*)	6,475	Scotia Printers, Ltd. J. R. H. Sutherland (*me*).
SYDNEY	Post-Record (*e*) (*I*)	21,485	Post Pub. Co., Ltd. R. G. Urquhart (*e*).
TRURO	News (*e*)	2,996	News Pub. Co., Ltd. J. M. Murphy (*e*).
	ONTARIO		
BELLEVILLE	Ontario-Intelligencer (*e*) (*I*)	8,151	Ontario Intelligencer Ltd. F. W. Rathman (*e*).
BRANTFORD	Expositor (*e*) (*I*)	15,981	Preston and Sons, Ltd. C. F. Sanders (*e*).
BROCKVILLE	Recorder and Times (*e*) (*I-L*)	6,933	The Recorder Printing Co., Ltd. H. R. Morgan (*e*).
CHATHAM	News (*e*) (*I*)	11,478	Thomson Pub. Co., Ltd. Joseph Emmott (*e*).
CORNWALL	Standard-Freeholder (*e*) (*I*)	9,132	The Standard Freeholder Ltd. John B. McKay (*me*).
FORT WILLIAM	Times-Journal (*e*) (*I*)	11,794	Times-Journal of Fort William Ltd. W. H. Goodman (*e*).
GALT	Reporter (*e*) (*I*)	8,530	Thomson Co., Ltd. Earl Werstine (*e*)
GUELPH	Mercury (*e*) (*I*)	11,182	Thomson Co., Ltd. A. M. Macalister (*e*)
HAMILTON	Spectator (*e*) (*I*)	67,487	Southam Co., Ltd. F. I. Ker (*e*).
KINGSTON	Whig-Standard (*e*) (*I-L*)	16,495	The Kingston Whig-Standard Co., Ltd. Hon. W. Rupert Davies (*e*).
KIRKLAND LAKE	Northern News (*e*) (*I*)	5,265	Thomson Pub. Co. R. P. Young (*e*).
KITCHENER WATERLOO	Record (*e*) (*I*)	19,990	News Record, Ltd. John E. Motz (*e*).
LINDSAY	Post (*e*)	1,903	G. H. Wilson, publisher.
LONDON	Free Press (*m*) (*I*)	38,907	London Free Press Ptg. Co. A. R. Ford (*ed in ch*).
	Free Press (*e*)	28,077	
	Combined Daily (*me*)	66,984	
NIAGARA FALLS	Review (*e*) (*I*)	9,521	F. H. Leslie, Ltd. J. M. Cowan (*e*).
NORTH BAY	Nugget (*e*) (*I*)	7,346	Nugget Pub. Co., Ltd. C. M. Fellman (*e*).
OSHAWA	Times-Gazette (*e*) (*I*)	7,599	Times Pub. Co. of Oshawa, Ltd. W. Ford Lindsay (*e*).
OTTAWA	Citizen (*m*) (*I-L*)	8,986	The Southam Co. Ltd. A. C. Cummings (*e*).
	Citizen (*e*)	39,471	
	Combined Daily (*me*)	48,457	
	Le Droit (French) (*e*) (*I*)	24,502	Le Syndicat d'Oeuvres Sociales Ltee. Camille l'Heureux (*e*)
	Journal (*m*) (*I*)	12,994	Journal Pub. Co. of Ottawa, Ltd. E. Norman Smith (*e*).
	Journal (*e*)	45,569	
	Combined Daily (*me*)	58,563	
OWEN SOUND	Sun-Times (*e*) (*I*)	11,241	Fleming Pub. Co., Ltd. Arthur Davidson (*e*).
PETERBOROUGH	Examiner (*e*) (*I*)	13,376	Peterborough Examiner Co., Ltd. R. Davies (*e*).
PORT ARTHUR	News-Chronicle (*e*) (*I-L*)	10,286	News-Chroncile Pub. Co., Ltd. O. F. Young (*e*).

ONTARIO—*cont.*

City	*Name of Paper*	*Circulation*	*Publisher and Editor*
Port Hope	Guide (*e*) (*I*)	1,699	George Wilson & Son Pub. Co. H.B. Crow (*e*).
St Catherines	Standard (*e*) (*I*)	16,175	St. Catherines Standard Ltd. H. L. Walsh (*e*).
St. Thomas	Times-Journal (*e*) (*I*)	10,075	Times-Journal of St. Thomas Ltd. Thomas Keith (*e*).
Sarnia	Canadian Observer (*e*) (*I*)	9,816	Thomson Pub. Co., Ltd. O. N. Wilson (*e*).
Sault Ste. Marie	Star (*e*) (*I*)	9,095	Sault Star Ltd. Robt. L. Curran (*e*).
Stratford	Beacon-Herald (*e*) (*I*)	10,177	The Beacon-Herald of Stratford, Ltd. C.D. Dingman (*e*).
Sudbury	Star (*e*) (*I*)	13,275	Sudbury Star Pub. Ltd. W. E. Mason (*me*).
Timmins	Press (*e*) (*I*)	11,224	The Thomson Co., Ltd. W. J. Marks (*e*).
Toronto	Commercial News and Bldg. Record (*d ex Sat*)	3,220	Daily Comm. News, Ltd.
	Globe and Mail (*m*) (*I*)	204,215	Globe Printing Co. Oakley Dalgleish (*e*).
	Star (*e*) (*I-L*)	346,538	The Toronto Star, Ltd. G. H. Maitland (*ed in ch*).
	Star Weekly (*Sat*)	901,639	
	Telegram (*e*) (*I-PC*)	185,746	Trustees of J. Ross Robertson Estate. C. O. Knowles (*e*).
Welland–Port Colborne	Welland-Port Colborne Tribune (*e*) (*I*)	8,981	The Thomson Co., Ltd. H. J. Foster (*e*).
Windsor	Star (*e*) (*I*)	62,645	The Star Pub. Co. of Windsor, Ltd. W. L. Clark (*e*).
Woodstock-Ingersoll	Sentinel-Review (*e*) (*I*)	8,282	The Thomson Co., Ltd. C. Kinsey (*e*)

PRINCE EDWARD ISLAND

Charlottetown	Guardian (*m*) (*I-PC*)	10,838	Island Guardian Pub. Co. J. R. Burnett (*e*).
	Patriot (*e*) (*I*)	6,420	Patriot Pub. Co. C. J. Mitchell (*ce*).

QUEBEC

Granby	La Voix de l'Est (French) (*e*) (*I*)	5,486	La Voix de l'Est Limitée. Rolland Gagné (*e*).
Montreal	(Le) Canada (French) (*m*) (*Li*)	24,219	La Cie de Publication du Canada, Ltée. G. R. Poulin (*me*).
	(Le) Devoir (French) (*e*) (*I*)	17,824	Imprimerie Populaire, Ltée. Omer Heroux (*e*).
	Gazette (*m*) (*I-PC*)	49,951	Gazette Ptg. Co., Ltd. C. H. Peters (*e*).
	Herald (*e ex Sat*)	38,021	Herald Pub. Co., Ltd. R. C. Hanson (*e*).
	Saturday Edition	25,472	
	Montreal-Matin (French) (*m*) (*Nat'l Union*)	26,922	Fédération des Journalistes Canadiens. R. Roger Duhamel (*e*).
	(La) Patrie (French) (*e ex Sat.*) (*I*)	18,896	La Patrie Pub. Co. Oswald Mayrand (*e*).
	Saturday Edition	40,533	
	Sunday Edition	244,776	
	Sat. and Sun.	285,309	
	(Le) Petit Journal (French) (*S*) (*I*)	173,590	Le Petit Journal, Inc. Fernand Denis (*e*).
	(La) Presse (French)		La Compagnie de Publication de la Presse, Ltée. Eugene Lamarche (*me*).
	Canadian Edition (*e ex Sat*)	221,232	
	Saturday	251,285	
	U.S.A. Edition (*e ex Sat*)	7,844	
	Saturday	7,838	
	Total Circulation— (*e ex Sat.*)	229,076	
	Saturday	259,123	
	Standard (*Sat.*) (*I*)	295,509	Montreal Standard Publishing Co., Ltd. J. G. McConnell (*e*).
	Star (*e*) (*I*)	147,213	Montreal Star Co., Ltd. George V. Ferguson (*e*).

QUEBEC—*cont.*

City	*Name of Paper*	*Circulation*	*Publisher and Editor*
QUEBEC	Chronicle-Telegraph (*e*) (*I*)	5,016	Quebec Newspapers, Ltd. Arthur G. Penny (*e*).
	L'Action Catholique (French) (*e*) (*I*)	83,411	L'Action Sociale, Ltée. L. P. Roy (*e*).
	L'Evenement Journal (French) (*m*) (*I-L*)	12,217	Le Soleil, Ltée. J. E. Barnard (*e*).
	Le Soleil (French (*e*)	98,431	
	Combined Daily (*me*)	110,648	
SHERBROOKE	(La) Tribune (French) (*e*)	16,108	La Tribune, Ltée. L. P. Robidoux (*me*).
	Record (*e*) (*I*)	9,024	Sherb. Rec. Co., Ltd. John Bassett, jr. (*e*).
THREE RIVERS	(Le) Nouvelliste (French) (*e*) (*I*)	18,796	La Cie de Pub. du Nouvelliste, Ltée. Emile Jean (*me*).

SASKATCHEWAN

MOOSE JAW	Times-Herald (*e*) (*I*)	7,436	Moose Jaw T-H Ltd. F. Workman (*e*).
PRINCE ALBERT	Herald (*e*) (*I*)	5,248	Herald Ptg. Co., Ltd. Burton Lewis (*e*).
REGINA	Leader-Post (*e*) (*I-L*)	*B*38,806	The Leader-Post, Ltd. D. B. Rogers (*e*).
SASKATOON	Star-Phoenix (*e*) (*I-L*)	*B*28,424	Saskatoon S-P Ltd. B. T. Richardson (*e*).

NEWFOUNDLAND

ST. JOHN'S	News (*m*) (*I*)		Robinson and Co., Ltd. Hon. J. S. Currie (*e*).
	Telegram (*e*) (*I*)	11,043	Evening Telegram, Ltd. C. E. A. Jeffery, M.B.E. (*e*).

SYMBOLS USED UNDER COLUMN "NAME OF PAPER"

m—Morning.
e—Evening.
me—Morning and Evening.
I—Independent.
I-L—Independent Liberal.
Li—Liberal.
La—Labour.
PC—Progressive Conservative.
I-PC—Independent Progressive-Conservative.
La-CCF—Labour-CCF.

SYMBOLS USED UNDER COLUMN "PUBLISHER AND EDITOR"

e—Editor.
me—Managing Editor
exec-e—Executive Editor.
ed-in-ch—Editor-in-Chief.
ce—City Editor

CANADIAN WEEKLY NEWSPAPERS ASSOCIATION

LIST OF MEMBERS

February 1, 1948

STANDARDS OF MEMBERSHIP

On the following pages are listed, by provinces, those weekly newspapers who are members of the Canadian Weekly Newspapers Association as of February, 1, 1948. Also shown is circulation rate and publisher's name.

To qualify for membership in C.W.N.A. a newspaper must conform with the following by-laws:—

(*a*) Must be recognised as newspapers by the Post Office Department.
(*b*) Must be regularly issued weekly, semi-weekly or tri-weekly and have been so issued for a period of not less than six months.
(*c*) Must have a paid circulation of not less than 75 per cent. of its press run, at a minimum of one dollar per year.
(*d*) Must perform a local community service.

Additional information may be obtained from W. E. McCartney, Managing-Director, Central Office, Brampton, Ontario. Telephone 1285.

Yukon and North-West Territories			
Whitehorse Star	488	·04	Horace E. Moore
Yellowknife (N.W.T.) News of the North	1182	·055	W. H. DeCoursey
British Columbia			
*Abbotsford News	2425	·03	Lang Sands
Agassiz Harrison Advance	400	·025	Ray R. Daubney
Armstrong Advertiser	750	·025	J. E. Jamieson
Ashcroft Journal	543	·025	L. W. Cumming
Burnaby Advertiser	1969	·043	G. A. Morrison
Burnaby News-Courier	3000	·05	Paul King
Burns Lake Review	540	·03	Geo. R. S. Simpson
*Chilliwack Progress	4106	·04	L. E. Barber
Cloverdale Surrey Leader	3362	·035	Geo. W. A. Smith
*Courtenay Comox Argus	1739	·03	Ben Hughes
*Courtenay Free Press	2413	·04	E. W. Bickel
*Cranbrook Courier	2212	·03	W. B. Mansfield
Creston Review	1200	·03	H. K. Legg
Dawson Creek News	1800	·03	C. S. Kitchen & Son
*Duncan Cowichan Leader	3529	·04	J. B. Creighton
Enderby Commoner	425	·025	J. D. Tucker
Fernie Free Press	1564	·03	V. W. R. B. Ball
Golden Star	400	·022	W. Fish
*Grand Forks Gazette	899	·035	Stanley Orris
*Haney Gazette	2500	·035	W. E. Dunning
*Kamloops Sentinel	4921	·045	Ralph E. White
Kaslo Kootenaian	400	·04	C. R. Fahrni
*Kelowna Courier	3304	·04	R. P. MacLean
Kimberley News	1260	·025	E. Moss
*Ladner Optimist	923	·03	Edgar Dunning
Ladysmith Chronicle	1150	·027	S. A. Hindmarch
Lillooet News	1525	·05	D. G. Murray
Merritt Herald	800	·025	Z. C. Mayon

* Indicates Membership in A.B.C.

Mission City Record	1850	·025	Lang Sands
Nakusp News	420	·022	A. B. S. Stanley
New Hazelton Herald	787	·025	C. H. Sawle
North Vancouver Press	4360	·054	H. H. Morden
Oliver Chronicle	1002	·025	A. Berryman
*Penticton Herald	3813	·045	G. J. Rowland
*Port Alberni Advocate	2970	·04	Irving Wilson
Port Coquitlam Herald	1200	·03	W. E. Dunning
*Powell River News	2206	·04	A. H. Alsgard
*Prince George Citizen	2491	·04	H. G. Perry
Quesnel Cariboo Observer	700	·036	J. B. Hutchcroft
*Revelstoke Review	1356	·03	A. W. Lundell
Rossland Miner	752	·03	L. P. Jecks
Salmon Arm Observer	1222	·03	D. F. Marshall
Sidney Saanich Review	1495	·035	F. C. E. Ford
Smithers Interior News	805	·035	K. B. Warner
Steveston Marpole Review	2900	·045	Mrs. E. C. Tibbits
Vancouver Highland Echo	3750	·054	A. G. Holmes
Vanderhoof Chronicle	780	·022	W. J. Rimes
*Vernon News	4283	·045	F. R. Harris
West Summerland Review	1000	·03	J. R. Armstrong
West Vancouver Times	1750	·04	C. S. Hoodspith
West Vancouver News	1550	·04	F. F. Lovegrove
White Rock Semiahmoo Sun	800	·022	L. A. Starck
Williams Lake Tribune	1286	·04	G. W. Renner
Zeballos Miner	350	·04	Annette Seywright

Alberta

Acme Sentinel	410	·023	Arthur Wheeler
Alix Free Press	446	·025	Mrs. F. V. Richards
Alliance Enterprise	630	·036	R. E. Matthews
Amisk Advocate	185	·025	T. W. Pue, Hughenden
Athabasca Echo	600	·025	B. W. Bellamy
Banff Crag and Canyon	770	·03	Lin Spiller
Bashaw Star	575	·022	T. M. Brinsmead
Bawlf Banner	400	·03	T. W. Pue, Hughenden
Blairmore Graphic	690	·036	J. R. McLeon
Brooks Bulletin	1600	·03	Clive Nesbitt
Camrose Canadian	3820	·035	R. L. King
Carbon Chronicle	350	·03	A. V. Wallace
Cardston News	1651	·04	F. Burton
Carstairs News	325	·022	R. L. Mills
Castor Advance	784	·025	J. H. Salton
Chauvin Chronicle	925	·03	L. D'Albertanson
Claresholm Local Press	930	·025	Gordon Neale
*Coleman Journal	620	·025	T. Holstead and A. Balloch
Consort Enterprise	592	·025	W. A. DeWolf
Coronation Review	763	·025	A. Jenson
Crossfield Chronicle	300	·025	R. Barnaby
Czar Clipper	245	·025	T. W. Pue, Hughenden
Daysland Sun	400	·03	T. W. Pue, Hughenden
Delburne Times	625	·03	A. T. George
Delia Times	550	·022	Jos. McKibbon
Didsbury Pioneer	840	·025	E. J. Rouleau
Drumheller Mail	2375	·04	Clarke Bros.
Edmonton La Survivance	3673	·04	B. Pletschet
Fairview Post	820	·025	E. Kelsey
*Fort Saskatchewan Fort Record	1696	·03	B. P. Knowles
Gleichen Call	518	·025	Geo. W. Evans
Grand Prairie Herald-Tribune	3621	·05	Duncan & Duncan
Hanna Herald and News	1625	·045	McCrea Pub. Co.
Hardisty World	400	·025	T. W. Pue, Hughenden
*High River Times	2165	·03	C. A. Clark
Holden Herald	1218	·045	G. L. Foran
Hughenden Record	300	·025	T. W. Pue
*Innisfail Province	1316	·025	B. A. Huckell
Irma Times	720	·03	G. H. Thunell
Killam News	450	·025	T. W. Pue, Hughenden
Lac La Biche Northern Herald	400	·025	D. Christensen
*Lacombe Globe	1898	·03	Harry J. Ford
Leduc Representative	1800	·03	F. Johns
Lougheed Journal	350	·025	T. W. Pue, Hughenden
Macleod Gazette	817	·025	H. T. Halliwell
Magrath Times	500	·02	H. Tilston-Jones
Millet Bulletin	400	·025	T. W. Pue, Hughenden
Nanton News	813	·025	Clyde Jessup
Okotoks Review	400	·03	C. Clark, High River
Olds Gazette	1350	·025	R. Newson and N. Leatherdale
*Peace River Record-Gazette	3155	·04	Garth Johnston
Picture Butte Progress	800	·025	H. Tilston-Jones
Pincher Creek Echo	950	·025	H. E. Hammond
Ponoka Herald	1306	·025	John F. Gordon
Provost News	750	·03	Geo. S. Holmes
Raymond Recorder	400	·025	S. J. Weaver
*Red Deer Advocate	4252	·04	F. P. Galbraith
Rimbey Record	796	·025	Mrs. C. Worton
Rocky Mountain House Mountaineer	850	·025	J. C. Gare
St. Paul Journal	1639	·039	Geo. LaRue
Sangudo Chronicle	585	·029	J. D. Skinner
Sedgewick Community Press	750	·03	A. W. Eastley
Stavely Advertiser	367	·022	G. Neale, Claresholm
Stettler Independent	1739	·03	C. L. Willis
*Strathmore Standard	1083	·03	C. A. MacLean
Strome Star	300	·025	T. W. Pue, Hughenden
Sylvan Lake News	500	·029	C. L. Dunford
*Taber Times	609	·03	A. H. Avery
Tofield Mercury	1000	·025	W. Worton
Trochu Tribune	350	·025	S. C. Stuart
Vegreville Observer	1400	·03	A. L. Horton
Vermilion Standard	1600	·039	S. R. P. Cooper
Viking News	819	·03	H. G. Thunell
Vulcan Advocate	747	·025	Charles Clark
Wainwright Star	804	·03	W. C. Huntingford
Westlock Witness	688	·029	Harry E. Martin
*Wetaskiwin Times	1715	·03	William W. Draayer

Saskatchewan

Alameda Dispatch	500	·051	S. J. Dornan
Aneroid News-Magnet	375	·02	T. D. Manning
Assiniboia Times	1548	·03	W. W. Stewart
Balcarres Free Lance	500	·029	Mrs. Bernice Van Male
Battleford Press	700	·02	A. R. Bock
Biggar Independent	940	·02	F. D. Stuart
Broadview Express	350	·02	W. Ashfield, Grenfell
Cabri Enterprise	942	·025	H. A. Henn
Canora Courier	515	·036	C. F. and R. D. Davis
Canwood Times	565	·03	F. J. Pepper
Carlyle Observer	765	·025	F. W. O'Neill
Carnduff Gazette-Post-News	815	·02	T. G. and W. A. Barnes
Climax Weekly Climax	480	·02	H. Lukes
Cut Knife Grinder	500	·02	R. J. Campbell
Davidson Leader	1153	·03	J. A. Vopni
Delisle Advocate	847	·02	H. A. Gardiner
Elrose Review	985	·025	T. P. McGrane
Esterhazy Observer	963	·025	W. M. Lobb
*Estevan Mercury	2703	·03	Andrew King
Eston Press	950	·03	C. W. Coombs
Foam Lake Review	800	·025	E. Johnson
Glaslyn Chronicle	245	·025	John Morin
Gravelbourg Star	997	·025	S. M. Bonneau
Grenfell Sun	852	·025	Walter Ashfield
Gull Lake Advance	750	·036	H. Gamble
Hanley Herald	262	·025	J. A. Vopni, Davidson
Herbert Herald	550	·025	Arthur Firus
Hudson Bay Post	750	·029	D. L. W. Hood
Humboldt Journal	1380	·04	R. A. Telfer
Imperial Review	477	·03	W. J. Nelson
Indian Head News	750	·029	Mrs. H. C. Lebourveau
Kamsack Times	1129	·05	C. F., R. D. and A. H. Davis
Kelvington Radio	1000	·025	R. Augustus
Kindersley Clarion	800	·025	W. A. Reid
Kinistino Post	729	·025	R. W. Phillips
Kipling Citizen	505	·025	T. J. Kearns
Landis Record	454	·023	Mrs. I. V. Cross
Langenburg News	535	·025	W. M. Lobb, Esterhazy

* Indicates Membership in A.B.C.

Langham News	275	·025	A. Pierce
Lanigan News	430	·025	J. Fehler, Guernsey
Lashburn Comet	525	·02	John M. Johnson
Leader Weekly News	360	·02	E. P. Hodgins
Lemberg Star	325	·021	E. S. H. Workman
Lloydminster Times	2354	·029	Geo. F. Baynton
Macklin Times	975	·025	Chas. Walker
Maidstone Mirror	700	·02	J. H. Nisbet
Maple Creek News	940	·025	W. J. Redmond
Maryfield News	435	·02	R. K. Harris
Meadow Lake Progress	700	·03	A. C. Stack
Medstead Herald	245	·025	W. E. Hoge
Melfort Journal	2407	·035	A. G. Lancaster
Melville Advance	1850	·025	O. W. Juckes
Milestone Mail	450	·02	J. E. Willoughby
*Moosomin World-Spectator	1823	·03	G. McKay
Mossbank Star	400	·025	C. C. Wyldman
Muenster Prairie Messenger	2640	·03	Rev. Geo. A. Brodner
Naicam Progress	410	·025	Leo Hamm
Nipawin Advertiser-Journal	1350	·025	C. W. Roberts
*Nokomis Times	967	·025	G. Humphrey
Norquay North Star	500	·02	R. M. Clements
*North Battleford News	2572	·036	C. R. McIntosh
*North Battleford Optimist	2379	·035	W. J. Gilhooley and C. J. Cross
Ogema Victory	465	·02	W. W. Stewart, Assiniboia
Outlook Outlook	912	·025	F. T. Gardiner
Oxbow Herald	875	·028	H. D. Pedlar
Preeceville Progress	612	·025	A. A. Clements
Punnichy Touchwood Times	450	·025	Fred Whiskin
Qu'Appelle Progress	750	·03	C. E. Hitchings
Radisson Comet	605	·025	Fulcher & Fulcher
Radville Star	825	·025	O. D. Stitt
Riverhurst Courier	580	·02	Fred T. Hill
Rocanville Record	450	·03	E. Gordon Hodgins
Rosetown Eagle	1652	·025	John Pinckney
Rosthern News	405	·02	Dietrich Epp
St. Walburg Enterprise	480	·02	A. Vinge
Semans Gazette	440	·022	D. S. Raichman, Eric R. Thomas
Shaunavon Standard	1222	·036	A. Sharpe & S. Stevens
Shellbrook Chronicle	1395	·03	G. H. Pickup
Shell Lake Eagle	380	·03	F. J. Pepper
Spiritwood Herald	516	·03	G. H. Pickup
Star City Echo	525	·03	G. W. Smallwood
Strasbourg Mountaineer	500	·03	W. A. Richardson
*Swift Current Sun	5410	·04	J. Greenblat
Tisdale Recorder	1850	·025	P. Diener
Tugaske Globe	500	·03	James R. Losie
Turtleford Sun	844	·025	Quincy Von Kuster
Unity Courier Herald	1218	·05	Cliff Pletschet
Viscount Sun	350	·025	W. T. Morphy
*Wadena News	1256	·03	R. Greenwood & K. Campbell
Wakaw Recorder	550	·025	M. C. Stuart
Wapella Post	543	·025	W. M. Woodhead
Watrous Manitou	1665	·03	J. A. McGowan
Watson Witness	487	·02	Mrs. R. E. Vossen
*Weyburn Review	2183	·03	E. G. Quick
Whitewood Herald	650	·025	John Scott
Wilkie Press	980	·022	E. Carter & M. Wilson
Windthorst Independent	165	·02	Walter Ashfield, Grenfell
Wolseley News	2123	·035	T. E. & H. S. Scriver
Wynyard Advance	1250	·035	K. A. Miller
*Yorkton Enterprise	4044	·04	S. N. Wynn

Manitoba

*Altona Echo	1797	·04	D. K. Friesen
Belmont News	400	·021	D. G. McFarlane
Binscarth Express	546	·025	Bert Cockburn
Birtle Eye Witness	810	·025	T. A. Wilson
Boissevain Recorder	1345	·035	Mrs. Una W. Philipps
Carberry News Express	915	·025	W. H. Lupton
Carman Dufferin Leader	1760	·035	L. J. Bennett
Cartwright Review	600	·025	H. A. Wallace
Crystal City Courier	491	·035	R. E. Buckley
Dauphin Herald and Press	3457	·04	W. K. Marsh
Deloraine Times and News	1280	·03	W. A. Bourns
Elkhorn Mercury	475	·035	F. C. Norris
*Elmwood Herald	1788	·05	N. S. McLean
Emerson Journal	550	·025	W. E. Carlson
Gilbert Plains Maple Leaf	880	·025	E. O. Brown
*Gladstone Age Press	1153	·029	A. E. MacLennan
Glenboro Gazette	550	·025	F. C. Beech
Grandview Exponent	817	·025	W. G. Chaloner
Hamiota Echo	625	·036	C. Venables
Hartney Star	485	·03	W. A. Bourns, Deloraine
Killarney Guide	1234	·03	T. E. Wilkins
*Lac du Bonnet Leader	1249	·036	A. W. Hanks, St. James
McCreary Times	350	·025	E. A. Mellersh, Plumas
MacGregor Herald	900	·025	A. M. Shaw
Manitou Western Canadian	986	·025	Mrs. W. J. Rowe
*Minnedosa Tribune	1778	·03	R. J. Sanderson
Morden Times	1413	·03	Raymond S. Evans
Morris Herald	442	·03	D. K. Friesen, Altona
Newdale Post	770	·025	John H. Christie
Pilot Mound Sentinel	490	·035	R. W. Tuckwell
Plumas Standard	610	·025	E. A. Mellersh
Portage Manitoba Leader	2119	·04	W. H. Vopni
Rapid City Reporter	535	·025	Cooper Stone
Reston Recorder	880	·025	F. R. Manning
Roland News	648	·03	W. McDonald
Rossburn Review	495	·025	H. J. Bowley
Russell Banner	956	·03	E. C. Sanderson
St. Boniface Press	1362	·04	T. Beveridge and N. Erskine
*St. James Leader	2122	·05	A. W. Hanks
St. Vital Lance	1787	·05	A. H. Leech
Selkirk Enterprise	1730	·025	J. E. Erickson
Shoal Lake Star	856	·025	Elgin Hurst
Souris Plaindealer	1225	·025	G. A. McMorran
Stonewall Argus	1500	·03	J. & W. G. Saundry
*Swan River Star and Times	871	·03	H. B. Munro
Transcona News	1791	·04	W. F. G. Hughes
Treherne Times	612	·03	A. E. Lodwick
*Virden Empire Advance	1547	·035	J. R. McLachlan
Wawanesa Optimist	540	·025	A. G. Wood
West Kildonan Citizen	750	·025	Vince Leah
*Winnipeg La Liberte	8657	·06	Leo Lafreniere
*Winnipeg Northwest Review	4352	·05	B. Leveille

Ontario

*Acton Free Press	1180	·025	G. A. Dills
*Alexandria Glengarry News	2266	·03	Eugene Macdonald
Alliston Herald	1340	·025	H. G. Falkner
Almonte Gazette	1675	·02	A. S. Hanna
Amherstburg Echo	2224	·03	John Marsh
*Arnprior Chronicle	1948	·025	W. H. McFarlane
Arthur Enterprise-News	1405	·02	Rixton Rafter
Aurora Banner	1380	·03	H. E. Lubbock
Ayr News	1150	·02	J. A. Schmidt
Bancroft Times	1211	·02	Price and Walker
*Barrie Examiner	7557	·045	J. A. MacLaren
*Beamsville Express	1056	·02	W. F. Rannie
Beaverton Express	875	·015	G. V. Cave
Beeton World	494	·036	J. J. Cook
Blenheim News-Tribune	1532	·025	R. G. Shearer
Blyth Standard	700	·02	Kenneth Whitmore
Bobcaygeon Independent	750	·015	M. Thurston
Bolton Enterprise	990	·015	Werden Leavens
Bothwell Times	800	·02	Mrs. H. J. Jerome
*Bowmanville Cadn. Statesman	3360	·04	Geo. W. James
Bracebridge Gazette	2380	·04	G. H. Thomas Estate

* Indicates Membership in A.B.C.

Bracebridge Herald	1975	·025	Robert J. Boyer
Bradford Witness	815	·035	S. S. McKenzie
*Brampton Conservator	2947	·035	H. R. Kennedy
Brampton Peel Gazette	1835	·035	J. O. Adams
*Brighton Ensign	746	·02	Miss Margaret R. Lapp
Brockville Recorder	525	·025	H. R. Morgan
Bruce Mines Spectator	600	·022	F. W. Rickaby
Brussels Post	975	·036	R. W. Kennedy
Burford Advance	750	·02	Geo. M. Messecar
Burlington Gazette	1760	·03	E. A. Harris
*Caledonia Sachem	1089	·02	A. & H. Martindale
Cannington Gleaner	640	·029	J. E. Roberts
Cardinal News	500	·025	E. A. Coons
Carleton Place Canadian	2040	·03	F. A. Davis
Carp Review	750	·036	James A. Evoy
Cayuga Advocate	955	·02	G. L. Hall
Chapleau Post	600	·022	Arthur Simpson
Chesley Enterprise	1510	·03	Clayton Schaus
Clinton News-Record	1808	·025	R. S. Atkey
*Cobourg Sentinel-Star	3327	·045	Foster M. Russell
Cobourg World	1000	·02	Frank W. Lapp
Cochrane Post	892	·02	H. A. Willis
Colborne Enterprise	800	·015	J. H. Gale
Coldwater News	630	·022	Frank A. Williams
Comber Herald	500	·02	E. E. Lancaster
Cookstown Advocate	820	·014	M. E. McFadden
Creemore Star	925	·02	C. B. Smith
Delhi News-Record	1087	·025	M. K. Glendinning
Deseronto Post	500	·02	S. R. Curry
Drayton Advocate	1350	·018	B. J. Garbutt
Dresden News	1600	·02	A. G. Ross
Dryden Observer	1570	·03	A. M. Wilson
*Dundalk Herald	1869	·025	F. D. MacIntyre
Dundas Star	1450	·02	C. G. Anslow
*Dunnville Chronicle	2887	·03	W. Fry, Jnr.
Durham Chronicle	1875	·02	Frank Irwin
Dutton Advance	972	·02	H. C. Campbell
Eganville Leader	1550	·03	A. and S. Tracey
Elmira Signet	1250	·025	E. C. Davis
Elmvale Lance	987	·02	A. C. McAuley
Elora Express	750	·02	Mrs. K. A. Marston
Erin Advocate	688	·02	R. W. Hull
Essex Free Press	2850	·025	K. E. Brett
Etobicoke Press	2000	·05	R. Silver, 3A Wendover Road, Toronto 9.
*Exeter Times-Advocate	2249	·025	J. M. Southcott
Fenelon Falls Gazette	825	·02	A. W. Robson
Fergus News-Record	1578	·02	Hugh Templin
Fordwich Record	425	·022	T. A. Roberts
Forest Free Press	998	·02	V. A. Pettypiece
Forest Standard	989	·02	W. A. Dunlop
Fort Erie Times-Review	2572	·05	E. W. Johnston
Frankford Advocate	900	·022	W. E. Loucks
Gananoque Reporter	1703	·025	Gerald Scott
Georgetown Herald	1325	·025	Walter C. Biehn
Geraldton Times-Star	940	·03	D. G. Goldie
Goderich Signal-Star	2640	·04	W. H. Robertson and G. L. Ellis
Gore Bay Recorder	1475	·04	Mrs. E. W. Davis
Grand Valley Star	900	·025	J. L. Landsborough
Gravenhurst Banner	1200	·025	Alfred Dass
Grimsby Independent	1600	·03	J. O. Livingston
Guelph Review	4000	·035	H. A. Cole
Hagersville Press	853	·03	D. G. Mounteer
Haileybury Haileyburian	700	·025	J. T. Leishman
Hanover Post	2470	·03	Mrs. G. H. Mitchell
Harriston Review	1020	·02	A. H. Gardiner & Sons
Harrow News	500	·018	Miss J. V. Pratt
Havelock Standard	507	·015	Fred L. McKenzie
Hawkesbury Echo	1825	·018	J. E. Laurin
Hespeler Herald	1261	·03	W. I. Baulk
Highgate Monitor	500	·018	E. V. Bingham
*Huntsville Forester	2164	·025	H. E. & P. H. Rice
Ingersoll Tribune	2276	·035	W. R. Veale
Iroquois Post	1000	·025	W. E. Crateau, Prescott
Jarvis Record	488	·025	A. L. Miller
Kapuskasing Tribune	1170	·05	E. Stephenson
Kemptville Advance	1500	·022	F. J. Friend
*Kenora Miner and News	2509	·035	J. A. Sherrett
Kingsville Reporter	1400	·025	Colin O. Sims
Lanark Era	1446	·025	Erroll Mason
Lansing Enterprise	1000	·02	B. A. Long
Leamington Post and News	3459	·025	Philip H. Fader
Leaside Advertiser	1500	·05	A. E. Donahue
Lindsay Watchman-Warder	5189	·035	S. R. Pitts
*Listowel Banner	2343	·03	B. L. H. Bamford
Little Current Expositor	1000	·035	W. J. Patterson
Lucknow Sentinel	1350	·03	L. Campbell Thompson
Madoc Review	962	·02	J. A. Watson
Markdale Standard	1236	·02	W. J. Colgan
Markham Economist	1600	·025	J. P. Whetter
Marmora Herald	650	·02	H. W. Sabine
Meaford Express	2000	·03	F. E. Secord
Merlin Standard	650	·015	R. W. Marshall
*Midland Free Press-Herald	4114	·04	W. H. Cranston
Mildmay Gazette	995	·02	W. Barry Wenger
Millbrook Mirror-Reporter	600	·02	J. H. Barringer
Milton Canadian Champion	1210	·025	G. A. Dills, Acton
Milverton Sun	2125	·02	A. W. Reis
Mitchell Advocate	1984	·03	Mrs. G. V. Mounteer
Morrisburg Leader	1000	·036	A. Laurin
Mount Forest Confederate	1865	·04	Miss Grace Wright
Napanee Beaver	3300	·036	Templeton and Son
Napanee Express	1976	·035	E. J. Pollard
New Hamburg Independent	964	·02	D. E. Ritz
*New Liskeard Speaker	2657	·03	C. E. Bond
*Newmarket Era	3419	·035	John Meyer
*New Toronto Advertiser	5089	·045	Miss L. O'Leary
Niagara-on-the-Lake Advance	784	·025	Douglas L. Young
Norwich Gazette	1100	·03	S. N. Manore
Norwood Register	575	·015	J. F. Chevers
Orillia News Letter	4895	·04	Curran Bros.
Orono Weekly Times	720	·02	R. A. Forrester
Oshawa Independent	3527	·057	J. McNaughton
Paisley Advocate	709	·025	D. McKenzie
*Palmerston Observer	797	·02	Arthur Carr
Paris Star	1650	·02	J. P. Pickell
Parkhill Gazette	1188	·02	Campbell Bros.
Parry Sound North Star	1675	·02	H. S. Wing
Perth Courier	2870	·03	John F. Withrow
Peterborough Review	4860	·04	C. E. LaBranche
Petrolia Advertiser	1925	·035	H. A. Ramage
Picton Times	1645	·03	W. G. McLean
*Port Credit Weekly	1861	·025	B. C. Smith
Port Elgin Times	1486	·025	C. W. McDiarmid
Port Perry Star	820	·022	S. Farmer
Powassan News	1400	·022	J. B. Lake
Prescott Journal	1600	·03	W. E. Crateau and J. A. Morris
Rainy River Record	1188	·035	Arthur V. Ricci
Richmond Hill Liberal	2318	·025	J. E. Smith
Ridgetown Dominion	1310	·025	E. V. Bingham
Rodney Mercury-Sun	978	·025	E. Lashbrook
Seaforth Huron Expositor	2350	·035	K. M. McLean
Shelburne Free Press	2000	·03	T. F. E. Claridge
*Smiths Falls Record News	3531	·045	A. E. Dobbie
*Smithville Review	2379	·025	Geo. A. Adams
Southampton Beacon	725	·02	E. H. Short
Stayner Sun	725	·025	Dave Philipps
Stirling News-Argus	993	·025	H. R. Tompkins
*Stouffville Tribune	2615	·025	A. V. Nolan
Strathroy Age-Dispatch	2262	·04	E. A. Spence
Streetsville Review	810	·025	A. S. Mendell
Sudbury L'Ami du Peuple	1975	·03	C. Lemieux
Sutton Reporter	711	·02	B. H. Sheppard
Tara Leader	1036	·025	Scott and Dentinger
Tavistock Gazette	810	·02	K. H. Brown

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Tecumseh La Feuille D'Erable	1900	·036	Senator G. Lacasse
Teeswater News	805	·02	Albert J. Worrall
Thessalon Advocate	850	·018	E. Thur
Thornbury Review-Herald	905	·02	A. A. Ramage
Thorold Post	1050	·03	E. L. Thompson
Tilbury Times	1300	·02	Bowles and Jeffries
*Tillsonburg News	4279	·035	H. J. Johnston
Timmins Porcupine Advance	2897	·05	Geo. Lake
West Toronto Weekly	7875	·06	Sam Wilson, 2787 Dundas W.
Tottenham Sentinel	750	·02	R. A. Semple
*Trenton Courier-Advocate	3192	·045	T. L. Wilson
Tweed News	1625	·025	S. R. Curry
Uxbridge Times-Journal	1858	·025	Harold J. Cave
Vankleek Hill Review	975	·02	A. Boyer
*Walkerton Herald-Times	2313	·035	Mrs. Edith Wesley
Wallaceburg News	3500	·018	Colwell Publishers
Warkworth Journal	800	·015	H. C. Wilson
Waterloo Chronicle	3404	·035	Roy M. Bean
Waterdown Review	750	·02	G. S. McRae
Watford Guide-Advocate	1204	·025	W. C. Aylesworth
Weston Times and Guide	3265	·04	Sam Wilson
Wheatley Journal	850	·025	R. N. Epplett
*Wiarton Echo	2225	·035	E. M. Duncan
Winchester Press	1640	·03	W. F. Workman
Wingham Advance-Times	1915	·025	W. B. McCool
Zurich Herald		·015	C. L. Smith

Quebec (*English*)

Buckingham Post	900	·036	A. H. Parker Estate
Coaticook Observer	680	·025	J. L. Gauthier, Sherbrooke
Granby Leader-Mail	1606	·03	Walter Legge
*Huntingdon Gleaner	3348	·035	Adam Sellar
Lachute Watchman	2150	·025	R. A. Giles
*Montreal Monitor	10821	·08	Hugh McCormick
Pointe Claire Lakeshore News	1850	·03	John A. Freeman
Rock Island Stanstead Journal	1650	·03	John C. Holland
St. Lambert Surburban News	7000	·07	Ken Hatton
St. Johns News	1882	·025	L. G. Gage
Shawinigan Falls Standard	2450	·04	D. R. Wilson
Three Rivers Chronicle	3810	·04	R. J. Clark
Town of Mount Royal Weekly Post	2356	·07	Lawrence Hibbert
Val d'Or Goldfields Star	2402	·04	Abitibi Printing Co.
*Verdun Guardian	10140	·08	H. G. Phillips
Verdun-Lasalle Messenger	16120	·08	H. J. Duhamel

Quebec (*French*)

Arthabaska L'Union	1500	·025	Z. Nault
Asbestos L'Asbestos	1864	·04	G. Veilleux, La Parole Lte., Drummondville
Donnacona L'Echo de Portneuf	3200	·06	Lucien Guertin
Drummondville La Parole	5525	·07	G. Veilleux
Gaspe La Voix de Gaspe	1823	·025	Les Editions Marquis, Montmagny
Granby La Revue	3100	·04	J. Oliva Hains
La Malbaie L'Avenir	1695	·025	*See* Gaspe
L'Islet Le Progres	1431	·02	*See* Gaspe
Lotbiniere L'Echo	1295	·02	*See* Gaspe
Maniwaki La Gazette	1175	·025	Joseph Jolicoeur
Montmagny Le Courrier	2120	·025	*See* Gaspe
Monmagny Le Peuple	1632	·04	Geo. Hebert
Rimouski Le Progres de Golfe	2445	·04	Georges Masson
Rimouski L'Echo	4564	·04	Gerard Legaré
St. Charles (B'Chasse) Le Courrier	1176	·02	*See* Gaspe
St. Jerome L'Avenir du Nord	5637	·05	Marc Fortin
St. Jerome L'Echo du Nord	6314	·06	Bernard Gareau
St.-Jean Le Canada Francais	6719	·04	L. O. Perrier
St. Therese Le Progres de Terrebonne	2356	·05	Guy Blanchard
Shawinigan Falls La Voix	2283	·05	Gilles Trudel
Sorel Le Courrier	2133	·03	Armand Boucher
*Thetford Mines Le Progres	1717	·04	Marcel Lemieux
Val d'Or La Gazette	1924	·03	Chas. A. Magnan
Valleyfield Le Progres	3775	·04	Albert Wallot
Waterloo Le Journal	1995	·03	C. A. Robideau

New Brunswick

Bathurst Northern Light	2264	·03	Frank E. Mersereau
Campbellton Tribune	2195	·03	L. G. Seeley and R. M Raymond
Chatham Commercial World	1500	·025	King Loggie
Dalhousie News	1520	·035	Geo. D. Christie
Edmundston Le Madawaska	3433	·03	J. G. Boucher
Newcastle Union Advocate	2535	·03	E. J. McKinnon
*Perth Victorian	1224	·03	A. H. MacLaggan
Sackville Tribune-Post	2900	·03	C. W. Moffatt
Saint John New Freeman	5250	·043	B. P. McCafferty
*St. Stephen Courier	5504	·04	S. D. Granville
*Sussex Kings County Record	3611	·03	C. R. Davis
Woodstock Sentinel-Press	2435	·03	Hugh Tait

Nova Scotia

Antigonish Casket	6882	·03	Leo MacGillivray
Berwick Register	2064	·03	John S. Scott
Bridgetown Monitor	1670	·03	Fred Beattie
*Bridgewater Bulletin	3939	·035	F. J. Macpherson
Digby Courier	2376	·03	James J. Wallis
*Kentville Advertiser	3167	·04	F. J. Burns
Liverpool Advance	2866	·03	G. Cecil Day
Lunenburg Progress	1453	·035	G. J. Bourque
Middleton Outlook	1365	·02	P. E. Black
New Glasgow Chronicle	3510	·03	James M. Cameron
New Glasgow Free Lance	2712	·04	J. R. H. Sutherland
Oxford Journal	1152	·025	V. B. Marchant
Parrsboro Record	800	·03	C. J. Allbon, Jnr.
Pictou Advocate	2378	·04	Geo. C. Murray
Shelburne Coast Guard	2240	·03	I. A. Shortcliffe
*Springhill Record	2416	·03	C. J. Allbon, Jnr.
Windsor Hants Journal	3600	·04	H. S. Anslow
Windsor Tribune	1900	·03	K. M. Miller and R. Turner
*Wolfville Acadian	1282	·03	W. B. Davidson

Prince Edward Island

*Summerside Journal	2666	·045	A. R. Brennan
*Summerside Pioneer	3430	·04	Earle C. Baker

Newfoundland

Corner Brook Western Star	6450	·05	Albert Bergeron
Grand Falls Advertiser	2907	·04	Walter Blackmore
St. John's Sunday Herald	13530	·089	Geoff. Stirling

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Foreign Language

Edmonton Ukrainian News	7000	·05	Basil Dickie
*Steinbach (Man.) Post	4905	·04	G. S. Derksen
*Winnipeg Gazeta Polska	3065	·05	John S. Pazdor
Winnipeg Logberg ..	4350	·05	J. T. Beck
Winnipeg Heimskringla	4500	·05	Pall S. Palsson
*Winnipeg New Pathway	8390	·06	F. A. Macrouch

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Canadian Independent Telephone Association—*Secretary:* H. A. Rogers, 26, Wellington Street East, Toronto, Ontario.

Telephone Association of Canada—*Secretary:* W. P. Montgomery, General Service Manager, Bell Telephone Co., of Canada, Montreal, Province of Quebec.

Western Counties Telephone Association—*Secretary:* Sid Adamson, Kirkton, Ontario.

RADIO

Canadian Association of Broadcasters—*Secretary:* T. Arthur Evans, 2100, Victory Building, Toronto, Ontario.

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Agricultural Press Association of Canada—*Secretary:* I. D. Carson, Executive Vice-President, Periodical Press Association, Room 1107, 137, Wellington Street West, Toronto, Ontario.

Association des Hebdomadaires canadiens-français—*Secretary:* Edouard Hains, P.O. Box 578, Magog, Province of Quebec.

Association of Canadian Circulation Executives—*Secretary:* R. D. Myles, Room 1107, 137, Wellington Street West, Toronto, Ontario.

Business Newspapers' Association of Canada—*Secretary:* I. D. Carson, 137, Wellington Street West, Toronto, Ontario.

Canadian Circulation Managers' Association—*Secretary:* W. J. Stewart, 403, Talbot Street, St. Thomas, Ontario.

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Canadian Industrial Editors' Association—*Secretary:* P.O. Box 399, Adelaide Street Post Office, Toronto 1, Ontario.

Canadian Section, Empire Press Union—*Hon. Secretary:* W. A. Craick, 1404, Montreal Trust Building, Toronto 1, Ontario.

Canadian Weekly Newspapers' Association—*Secretary:* W. E. McCartney, Brampton, Ontario.

Canadian Weekly Newspapers' Association (British Columbia Division)—*Secretary:* A. W. Lundell, Revelstoke, British Columbia.

Canadian Weekly Newspapers' Association, Incorporated (Alberta Division)—*Secretary:* Charles A. Clark, " The High River Times," High River, Alberta.

Canadian Weekly Newspapers' Association (Manitoba Division)—*Secretary:* A. W. Hanks, 604, Avenue Building, Winnipeg.

Canadian Weekly Newspapers' Association (Ontario-Quebec Division)—*Secretary:* R. A. Giles, Lachute, Province of Quebec.

Canadian Weekly Newspapers' Association (Saskatchewan Division)—*Secretary:* S. J. Dornan, Alameda, Saskatchewan.

Canadian Women's Press Club—*Secretary:* Mrs. J. R. Nairn, 621, Jarvis Street, Toronto, Ontario.

Class " A " Weeklies of Canada—*Secretary:* L. B. Calnan, 606, Concourse Building, 100, Adelaide Street West, Toronto, Ontario.

Magazine Publishers' Association of Canada—*Secretary:* I. D. Carson, 137, Wellington Street West, Toronto, Ontario.

Ontario Provincial Dailies' Association—*Secretary:* Mrs. Lila M. Blacklock, *c/o* " The Kingston Whig-Standard ", Kingston, Ontario.

Periodical Press Association—*Secretary:* I. D. Carson, Room 1107, 137, Wellington Street West, Toronto, Ontario.

Weekly Newspapers' Association (Nova Scotia Division)—*Secretary:* G. Cecil Day, " The Liverpool Advance ", Liverpool, Nova Scotia.

Wellington, Dufferin and Perth Press Association—*Secretary:* Arthur Carr, " The Observer ", P.O. Box 220, Palmerston, Ontario.

PROFESSIONAL ASSOCIATIONS

ACCOUNTANTS AND SECRETARIES

Certified Public Accountants' Association of Ontario—*Secretary:* F. T. Sudbury, C.P.A., 68, King Street East, Toronto 1, Ontario.

Chartered Institute of Secretaries of Joint Stock Companies and Other Public Bodies (Province of Quebec Branch)—*Secretary:* Gordon S. Small, C.A., F.C.I.S., 460, Francois Xavier Street, Montreal, Province of Quebec.

Chartered Institute of Secretaries of Joint Stock Companies and Other Public Bodies (Toronto Branch)—*Secretary:* Room 100, 19, Melinda Street, Toronto 1, Ontario.

Cost and Management Institute—*Secretary:* Charles P. Dumas, M.C.I., L.C.M.I., 360, St. James Street West, Montreal, Province of Quebec.

Dominion Association of Chartered Accountants—*Secretary:* C. L. King, C.A., 10, Adelaide Street East, Toronto, Ontario.

General Accountants' Association—*Secretary:* John Rhodes, C.G.A., P.O. Box 69, Station B., Montreal, Province of Quebec.

Independent Public Accountants' Association of Ontario—*Secretary:* S. R. Patterson, 60, Front Street West, Toronto.

Institute of Accredited Public Accountants—*Secretary:* H. M. Prescott, 700-701, Great West Permanent Building, Winnipeg, Manitoba.

Institute of Chartered Accountants of Alberta—*Secretary:* M. C. McCannell, F.C.A., 713, McLeod Building, Edmonton, Alberta.

Institute of Chartered Accountants of British Columbia—*Secretary:* H. Norman Lunn, C.A., 608, Stock Exchange Building, Vancouver, British Columbia.

Institute of Chartered Accountants of Manitoba—*Secretary:* William Young, C.A., 218, Portage Avenue, Winnipeg, Manitoba.

Institute of Chartered Accountants of Nova Scotia—*Secretary:* L. E. Peverill, P.O. Box 501, Halifax, Nova Scotia.

Institute of Chartered Accountants of Ontario—*Secretary:* B. A. Armstrong, F.C.A., 10, Adelaide Street East, Toronto, Ontario.

Institute of Chartered Accountants of Prince Edward Island—*Secretary:* T. Earle Hickey, 15, Granville Street, Summerside, Prince Edward Island.

Institute of Chartered Accountants of Quebec—*Secretary:* Jean Valiquette, 430, Canada Cement Building, Montreal, Province of Quebec.

Institute of Chartered Accountants of Saskatchewan—*Secretary:* W. H. Cook, Box 292, Regina, Saskatchewan.

International Accountants' and Executives' Corporation of Canada—*Secretary:* Chas. R. Hill, 601, Federal Building, Toronto, Ontario.

National Office Management Association (**Manitoba Chapter**)—*Secretary:* B. Sutherland, *c/o* The T. Eaton Co., Ltd., Winnipeg, Manitoba.

National Office Management Association (**Montreal Chapter**)—*Secretary:* R. C. Ludlow, R.C.A. Victor Co., Ltd., 1001, Lenior Street, Montreal, Province of Quebec.

National Office Management Association (**Vancouver Chapter**)—*Secretary:* A. E. Sprange, *c/o* Trans-Canada Investment Corporation, Ltd., 789, West Pender Street, Vancouver, British Columbia.

New Brunswick Institute of Chartered Accountants—*Secretary:* G. A. Oulton, P.O. Box 486, Saint John, New Brunswick..

Society of Industrial Accountants of Alberta—*Secretary:* F. H. Ougden, B.A., M.C.I., R.I.A., 1439, Ninth Street Northwest, Calgary, Alberta.

Society of Industrial Accountants of British Columbia—*Secretary:* Clifton H. Davis, R.I.A., 3538 West 34th Street, Vancouver, British Columbia.

Society of Industrial and Cost Accountants of Canada—*Secretary:* J. N. Allan, R.I.A., 66, King Street East, Hamilton, Ontario.

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Royal Architectural Institute of Canada—*Secretary:* Miss Anne M. Cory, 74, King Street East, Toronto, Ontario.

PROVINCIAL ASSOCIATIONS OF ARCHITECTS

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Nova Scotia Association of Architects—*Secretary:* Allen F. Duffus, Green Lantern Building, Halifax, Nova Scotia.

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CANADIAN EDUCATION ASSOCIATION

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Association canadienne-française d'Education d'Ontario—*Secretary:* Roger Charbonneau, 368, Dalhousie Street, Ottawa, Ontario.

Association des Commissaires des Ecoles bilingues d'Ontario—*Secretary:* Aime Arvisais, B.A., 143, Putman Street, Ottawa, Ontario.

Association of Ontario Public School Trustees and Ratepayers—*Secretary:* J. D. Mills, 51, Goodwood Park Crescent, Toronto 13, Ontario.

Canadian Association for Adult Education—*Director:* E. A. Corbette, M.A., LL.D., 119, Isabella Street, Toronto 5, Ontario.

Canadian Education Association—*Secretary:* F. K. Stewart, 677, Dundas Street West, Toronto 2B, Ontario.

Canadian Federation of Home and School—*Secretary:* Mrs. K. G. Kern, 4373, West Twelfth Avenue, Vancouver, British Columbia.

Manitoba Federation of Home and School—*Secretary:* Mrs. F. Curtis, Room 46, Legislative Building, Winnipeg, Manitoba.

Manitoba School Trustees' Association—*Secretary:* Robert Love, Melita, Manitoba.

New Brunswick Federation of Home and School Associations—*Secretary:* Miss Grace Caughlin, Woodstock, New Brunswick.

Ontario Federation of Home and School Associations, Incorporated—*Secretary:* Mrs. P. McLelland, 79, Queen Street East, Toronto, Ontario.

Ontario School Trustees' and Ratepayers' Association—*Secretary:* J. V. Mills, B.A., B.Th., 30, Bloor Street West, Toronto 5, Ontario.

Saskatchewan School Trustee's Association—*Secretary:* C. W. McCool, K.C., 806, Canada Building, Saskatoon, Saskatchewan.

Société canadienne d'Enseignement postscolaire—*Secretary:* Eugène Bussière, Social Sciences Faculty, Laval University, Quebec, Province of Quebec.

TEACHERS' FEDERATIONS

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British Columbia Teachers' Federation—*Secretary:* C. D. Ovans, 1300, Robson Street, Vancouver, British Columbia.

Canadian Teachers' Federation—*Secretary:* Dr. C. N. Crutchfield, 109, Cascade Avenue, Shawinigan Fallas, Province of Quebec.

Federation of English Speaking Catholic Teachers, Incorporated—*Secretary:* Brendan J. Fahey, Apt. 3, 3421, Grand Boulevard, Montreal 28, Province of Quebec.

Manitoba Teachers' Society—*Secretary:* T. A. McMaster, 618, McIntyre Block, Winnipeg, Manitoba.

New Brunswick Teachers' Association—*Secretary:* A. R. Stiles, Riverside, Albert Co., New Brunswick.

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Prince Edward Island Teachers' Federation—*Secretary:* Miss Hilda Brown, 110, Hillsboro Street, Charlottetown, Prince Edward Island.

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Association d'Education des Canadiens français de Manitoba—*Secretary:* Mlle. Yolande Gendron, 200, Provencher, St. Boniface, Manitoba.

Association technologique de Langue française—*Secretary:* J. A. St. Georges, 123, Rideau Street, Ottawa, Ontario.

Canada Foundation—*Secretary:* Mrs. Margaret J. Cameron, Room 728, 56, Sparks Street, Ottawa, Ontario.

Canadian Citizenship Council—*Secretary:* J. E. Robbins, 166, Marlborough Avenue, Ottawa, Ontario.

Canadian Geographical Society—*Secretary:* E. S. Martindale, 49, Metcalfe Street, Ottawa, Ontario.

Canadian Home Economics' Association—*Secretary:* Miss E. Alberta Hastie, Suite J, Annamoe Apts, Edmonton, Alberta.

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Canada-United States, Committee on Education—*Secretary:* F. K. Stewart, 677, Dundas Street West, Toronto, Ontario.

Federation of Ontario Naturalists—*Secretary:* Mrs. L. E. Jaqwith, 100, Queen's Park, Toronto 5, Ontario.

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Manitoba Museum Association—*Hon. Secretary:* G. Shirley Brooks, The Auditorium, Winnipeg, Manitoba.

National Conference of Canadian Universities—*Secretary:* Professor H. F. Angus, University of British Columbia, Vancouver, British Columbia.

Ontario Vocational Guidance Association—*Secretary:* Percy R. Douglas, 40, Beachdale Avenue, Toronto, Ontario.

Société canadienne d'Histoire naturelle—*Secretary:* Stephen Vincent, Botanical Gardens, 4101, Sherbrooke Street East, Montreal 36, Province of Quebec.

HISTORICAL ASSOCIATIONS

British Columbia Historical Association—*Secretary:* Miss Helen Boutilier, 976, West 13th Avenue, Vancouver, British Columbia.

Canadian Historical Association—*Secretary:* Norman Fee, Public Archives of Canada, Ottawa, Ontario.

Cape Sable Historical Society—*Secretary:* Mrs. Sarah H. Richan, Barrington Passage, Barrington, Nova Scotia.

Champlain Society—*Secretaries:* Professor George Glazebrook and Harold C. Walker, K.C., *c/o* University of Toronto Library, Toronto, Ontario.

Historical and Scientific Society of Manitoba—*Secretary:* J. A. Jackson, Provincial Library, Legislative Building, Winnipeg, Manitoba.

Historical Society of Alberta—*Secretary:* W. Everard Edmonds, 11146, 91st Avenue, Edmonton, Alberta.

Nova Scotia Historical Society—*Secretary:* Dr. W. L. Payzant, K.C., 92, Granville Street, Halifax, Nova Scotia.

Ontario Historical Society—*Secretary:* Dr. J. J. Talman, the Library, University of Western Ontario, London, Ontario.

Queens County Historical Society—*Secretary:* Miss Anne Hendry, Main Street, Liverpool, Nova Scotia.

Saskatchewan Historical Society—*Secretary:* Z. M. Hamilton, 608, McCallum Hill Building, Regina, Saskatchewan.

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Engineering Institute of Canada

Dominion Council of Professional Engineers—*Secretary:* Lieut. Col. M. Barry Watson, 119, St. George Street, Toronto 5, Ontario.

Engineering Institute of Canada—*Secretary:* Dr. L. Austin Wright, M.E.I.C., 2050, Mansfield Street, Montreal, Province of Quebec.

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Association of Professional Engineers of the Province of British Columbia—*Secretary:* A. D. Creer, 929, 718, Granville Street, Vancouver, British Columbia.

Association of Professional Engineers of the Province of Manitoba—*Secretary:* C. S. Landon, P.O. Box 21, Winnipeg, Manitoba.

Association of Professional Engineers of the Province of New Brunswick—*Secretary:* E. L. Ball, P.O. Box 24, Saint John, New Brunswick.

Association of Professional Engineers of Nova Scotia—*Secretary:* J. D. Kline, P.O. Box 731, Halifax, Nova Scotia.

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Association of Professional Engineers of Saskatchewan—*Secretary:* D. W. Houston, P.O. Box 101, Regina, Saskatchewan.

Corporation of Professional Engineers of Quebec—*Secretary:* J. A. Lalonde, Room 102, 2354, St. Catherine Street East, Montreal 18, Province of Quebec.

Federation of Employee-Professional Engineers and Assistants—*Secretary:* E. A. Ricker, Box 118, Adelaide Street Station, Toronto, Ontario.

Canadian Institute of Mining and Metallurgy

Canadian Institute of Mining and Metallurgy—*Secretary:* E. J. Carlyle, 906, Drummond Building, Montreal 2, Province of Quebec.

Canadian Institute of Mining and Metallurgy (British Columbia Section)—*Secretary:* Fred H. Stephens, 505, Metropolitan Building, Vancouver, British Columbia.

Mining Society of Nova Scotia—*Secretary:* Sydney C. Mifflen, 60, Whitney Avenue, Sydney, Nova Scotia.

Other Engineering Associations

Affiliated Engineering and Allied Societies in Ontario—*Secretary:* G. L. White, *c/o* Westman Publications, Ltd., 137, Wellington Street West, Toronto, Ontario.

American Institute of Electrical Engineers (**Montreal Branch**)—*Secretary:* J. T. Fisher, General Engineering Department, Bell Telephone Co. of Canada, 76, Adelaide Street West, Toronto.

American Institute of Electrical Engineers (**Toronto Section**)—*Secretary:* H. R. Osborne, Ferranti Electric, Ltd., Mount Dennis, Toronto 9, Ontario.

American Institute of Electrical Engineers (**Vancouver Section**)—*Secretary:* W. Lind, *c/o* Canadian General Electric Co., 1065, West Pender Street, Vancouver, British Columbia.

American Society of Mechanical Engineers (**Ontario Section**)—*Secretary:* M. F. Carrière, Canadian General Electric Co., Ltd., 212, King Street West, Toronto, Ontario.

American Water Works' Association (**Canadian Section**)—*Secretary:* A. E. Berry, *c/o* Ontario Department of Health, Parliament Buildings, Toronto, Ontario.

Association des Ingénieurs forestiers de la Province de Québec—*Secretary:* Theo. Mercier, 2, Abraham Hill, Quebec, Province of Quebec.

Association of Professional Chemists of Quebec—*Secretary:* Arthur F. Watson, 70, St. Mathieu Street, Ville St. Laurent, Montreal 9, Province of Quebec.

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Canadian Institute on Sewage and Sanitation—*Secretary:* A. E. Berry, *c/o* Ontario Department of Health, Parliament Buildings, Toronto, Ontario.

Canadian Society of Forest Engineers—*Secretary:* Clarence Cooper, 10, Manor Road West, Toronto 12, Ontario.

Canadian Society of Forest Engineers (**Northwest Ontario Section**)—*Secretary:* E. H. Reeves, *c/o* Newaygo Timber Co., Port Arthur, Ontario.

Canadian Society of Forest Engineers, Prairies' Section—*Secretary:* V. H. Phelps, *i/c* Forest Service, Federal Building, Winnipeg, Manitoba.

Chemical Institute of Canada—*Secretary:* Garnet T. Page, M.C.I.C., 18, Rideau Street, Ottawa, Ontario.

Illuminating Engineering Society (**British Columbia Chapter**)—*Address:* 1065, West Pender Street, Vancouver, British Columbia.

Illuminating Engineering Society (**Montreal Section**)—*Secretary:* F. P. Labey, 1620, Notre Dame West, Montreal, Province of Quebec.

Institute of Radio Engineers (**Canadian Council**)—*Secretary:* R. A. Hackbusch, 211, Geary Avenue, Toronto 4, Ontario.

Northern Ontario Section Canadian Society of Forest Engineers—*Secretary:* D. L. Davidson, Woods Office, Kapuskasing, Ontario.

Society of Automotive Engineers (**B.C. Group**)—*Secretary:* C. S. Carswell, Box 693, Vancouver, British Columbia.

Society of Automotive Engineers (**Canadian Section**)—*Secretary:* Clifford E. Phillips, *c/o* Perfect Circle Co., 175, Wicksteed Avenue, Toronto 12, Ontario.

ENTOMOLOGISTS

Entomological Society of British Columbia—*Secretary:* W. G. Mathers, Box 308, Vernon, British Columbia.

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Conference of Governing Bodies of the Legal Profession in Canada—*Secretary:* W. Earl Smith, K.C., Osgoode Hall, Toronto, Ontario.

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Nova Scotia Barristers' Society—*Secretary:* L. S. Whinyard, Law Courts, Halifax, Nova Scotia.

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Canadian Writers' Foundation, Incorporated—*Secretary:* Mrs. D. W. Thomson, 508, Plaza Building, Ottawa, Ontario.

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Federation of Canadian Artists—*Secretary:* Mrs. Alison Palmer, 1, Redpath Row, Montreal, Province of Quebec.

Manitoba Society of Artists—*Secretary:* A. P. Hunter, 195, Queenston Street, Winnipeg.

Maritime Art Association—*Secretary:* Wm. E. de Garthe, 80 Granville Street, Halifax, Nova Scotia.

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Vancouver Art Gallery—*Secretary:* A. S. Grigsby, 1145, West Georgia Street, Vancouver, British Columbia.

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British Columbia Medical Association—Dr. F. L. Whitehead, Medical-Dental Building, Vancouver, British Columbia.

Canadian Medical Association, Alberta Division—*Secretary:* Dr. W. Bramley-Moore, 207, Alexandra Block, Edmonton, Alberta.

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Ontario Medical Association—*Secretary:* Dr. H. S. Dunham, 135, St. Clair Avenue West, Toronto 5, Ontario.

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Société canadienne française d'Electrologie et de Radiologie médicales—*Secretary:* Dr. Origene Dufresne, 4120, Ontario East, Montreal, Province of Quebec.

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British Columbia Society of Occupational Therapy—*Secretary:* Miss C. Jourard, Occupational Therapy Department, Shaughnessy Hospital, Vancouver, British Columbia.

British Columbia Tuberculosis Society—*Secretary:* A. S. McCloskey, 906, West Broadway, Vancouver, British Columbia.

Canadian Association of Occupational Therapy—*Secretary:* Miss Helen P. Levesconte, 331, Bloor Street West, Toronto 5, Ontario.

Canadian Association of Radiologists—*Secretary:* Dr. E. M. Crawford, 2100, Marlowe Avenue, Montreal 28, Province of Quebec.

Canadian Cancer Society—*Secretary:* Mrs. Jean E. Pierce, 280, Bloor Street West, Toronto 5, Ontario.

Canadian Council on Nutrition—*Acting Chairman:* Dr. L. B. Pett, Chief, Nutrition Division, Department of National Health and Welfare, Ottawa, Ontario.

Canadian Dietetic Association—*Secretary:* Miss Elsie G. Watt, 78, Grosvenor Street, Toronto 5, Ontario.

Canadian Medical Protective Association—*Secretary:* Dr. T. L. Fisher, Suite 402, 180, Metcalfe Street, Ottawa, Ontario.

Canadian Physiotherapy Association—*Secretary:* Mrs. Curtis Millar, 6, Devonshire Place, Toronto, Ontario.

Canadian Physiotherapy Association (British Columbia Branch)—*Secretary:* Miss J. M. Law, Physiotherapy Department, North Vancouver, General Hopital, North Vancouver, British Columbia.

Canadian Psychological Association—*Secretary:* C. R. Meyers, Ph.D., 100, St. George Street, Toronto, Ontario.

Canadian Society of Laboratory Technologists—*Secretary:* Miss Helen L. Smith, 294, Barton Street East, Hamilton, Ontario.

Canadian Society of Radiological Technicians—*Secretary:* H. C. J. Simkins, 12,252 Guertin Street, Montreal, Province of Quebec.

Canadian Tuberculosis Association—*Secretary:* Dr. G. J. Wherrett, 265, Elgin Street, Ottawa, Ontario.

Mental Hygiene Institute—*Secretary:* Dr. F. H. Mackay, 531, Pine Avenue West, Montreal 18, Province of Quebec.

National Committee for Mental Hygiene (Canada)—*General Director:* Dr. Clarence M. Hincks, 111, St. George Street, Toronto, Ontario.

National Sanatorium Association—*Secretary:* Geo. A. Reid, 223, College Street, Toronto 2B, Ontario.

New Brunswick Society of X-ray Technicians—*Secretary:* Sister M. Rose Agnes, S.C.I.C., *c/o* St. Joseph's Hospital, Saint John, New Brunswick.

Ontario Association of Pathologists—*Secretary:* Dr. W. L. Donohue, Hospital for sick children, 67, College Street, Toronto 2, Ontario.

Ontario Cancer Treatment and Research Foundation—*Secretary:* J. H. Broughton, 22, College Street, Toronto.

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Ontario Society of Occupational Therapy—*Secretary:* Miss Lois Templeton, 331, Bloor Street West, Toronto, Ontario.

Ontario Tuberculosis Association—*Secretary:* E. J. O'Brien, 11, Queen's Park, Toronto, Ontario.

Province of Quebec Society of X-ray Technicians—*Secretary:* Miss Jean Harris, 5062, Notre Dame de Grace Avenue, Montreal 28, Province of Quebec.

Psychological Association of the Province of Quebec—*Secretary:* Professor Douglas Burns Clarke, *c/o* Sir George Williams College, 1441, Drummond Street, Montreal 25, Province of Quebec.

Quebec Society of Occupational Therapy, Incorporated—*Secretary:* Miss Frances MacArthur, 1502, St. Catherine Street West, Montreal, Province of Quebec.

Société canadienne française d'Electrologie et de Radiologie médicales—*Secretary:* Dr. Origene Dufresne, 4120, Ontario East, Montreal, Province of Quebec.

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Association of Registered Nurses (Alberta Branch)—*Secretary:* Miss E. Bell Rogers, R.N., St. Stephen's College, Edmonton, Alberta.

Canadian Nurses' Association—*Secretary:* Miss Gertrude M. Hall, R.N., Room 401, 1411, Crescent Street, Montreal 25, Province of Quebec.

Manitoba Association of Licensed Practical Nurses—*Secretary:* Mrs. E. Green, 687, Beresford Avenue, Winnipeg, Manitoba.

Manitoba Association of Registered Nurses—*Secretary:* Miss Lillian Pettigrew, R.N., 214, Balmoral Street, Winnipeg, Manitoba.

New Brunswick Association of Registered Nurses—*Secretary:* Miss Alma F. Law, 29, Wellington Row, Saint John, New Brunswick.

Prince Edward Island Registered Nurses' Association—*Secretary:* Miss Helen Arsenault, Provincial Sanatorium, Charlottetown, Prince Edward Island.

Registered Nurses' Association of British Columbia—*Secretary:* Miss Alice L. Wright, R.N., 1014, Vancouver Block, Vancouver, British Columbia.

Registered Nurses' Association of Nova Scotia—Miss Nancy Watson, R.N., 301, Barrington Street, Halifax, Nova Scotia.

Registered Nurses' Association of Ontario—*Secretary:* Miss Matilda E. Fitzgerald, R.N., Suite 715, 86, Bloor Street West, Toronto 5, Ontario.

Saskatchewan Registered Nurses' Association—*Secretary:* Miss K. W. Ellis, 104, Saskatchewan Hall, University of Saskatchewan, Saskatoon, Saskatchewan.

Victorian Order of Nurses for Canada—*Secretary:* Mrs. E. H. Coleman, 114, Wellington Street, Ottawa, Ontario.

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Canadian Junior Red Cross—*Director:* Miss Jean E. Browne, 95, Wellesley Street, Toronto, Ontario.

Canadian Red Cross Society—*Secretary:* A. R. Sellery, 95, Wellesley Street, Toronto, Ontario.

ST. JOHN AMBULANCE

Priory in Canada of the Order of St. John of Jerusalem—*National Headquarters:* St. John House, 321, Chapel Street, Ottawa, Ontario.

DENTAL ASSOCIATIONS

Alberta Dental Association—*Secretary:* R. A. Rooney, D.D.S., 523, Tegler Building, Edmonton, Alberta.

Canadian Dental Association—*Secretary:* Dr. Don W. Gullett, 211, Huron Street, Toronto, Ontario.

Canadian Dental Hygiene Council—*Secretary:* Dr. Harry S. Thompson, 18, Summerhill Gardens, Toronto, Ontario.

College of Dental Surgeons of Saskatchewan—*Secretary:* Dr. L. J. D. Fasken, 2216, Angus Street, Regina, Saskatchewan.

College of Dental Surgeons of British Columbia—*Registrar:* Dr. W. J. Lea, 1520, Medical-Dental Building, Vancouver, British Columbia.

Dental Association of Prince Edward Island—*Secretary:* Dr. Heath McIntyre, 140, Richmond Street, Charlottetown, Prince Edward Island.

Dominion Dental Council of Canada—*Secretary:* Dr. A. J. Brett, 202, Kerr Block, Regina, Saskatchewan.

Eastern Ontario Dental Association—*Secretary:* Dr. A. Couture, 48, Rideau Street, Ottawa, Ontario.

Manitoba Dental Association—*Secretary:* Dr. J. F. Morrison, 416, Medical Arts Building, Winnipeg, Manitoba.

New Brunswick Dental Society—*Secretary:* Dr. S. K. Wetmore, 147, Germain Street, Saint John, New Brunswick.

Nova Scotia Dental Association—*Secretary:* Dr. A. B. Haverstock, 502, Roy Building, Halifax, Nova Scotia.

Ontario Dental Association—Dr. Glenn T. Mitton, Room 500, 86, Bloor Street West, Toronto 5, Ontario.

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Manitoba Osteopathic Association—*Secretary:* Dr. Lionel B. Mason, 811, Somerset Building, Winnipeg, Manitoba.

Maritime Osteopathic Association—Dr. Alfred J. O'Donnell, 172, Princess Street, Saint John, New Brunswick.

Ontario Osteopathic Association—*Secretary:* Dr. A. R. Johnston, 1298, King Street East, Hamilton, Ontario.

Province of Quebec, Osteopathic Association—*Secretary:* Dr. Fred G. Marshall, 923, Medical Arts Building, Montreal, Province of Quebec.

Saskatchewan Society of Osteopathic Physicians—*Secretary:* Dr. Doris M. Tanner, 405, Sterling Trusts Building, Regina, Saskatchewan.

Western Ontario Osteopathic Association—*Secretary:* Dr. C. R. Merrill, 32, South Waterloo Street, Stratford, Ontario.

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Associated Chiropractors and Drugless Therapists Of Ontario, Incorporated—*Secretary:* John A. Schnick, 2, King Street West, Hamilton, Ontario.

Canadian Chiropractors' Association—*Secretary:* John S. Burton, Barrister and Solicitor, 502, Credit Foncier Building, 850, West Hastings Street, Vancouver, British Columbia.

Chiropractors' Association of British Columbia—*Secretary:* John S. Burton, 502, Credit Foncier Building, 850, West Hastings Street, Vancouver, British Columbia.

Manitoba Chiropractors' Association—*Registrar:* Dr. L. F. Theobald, 501, Avenue Building, Winnipeg, Manitoba.

CHIROPODISTS

British Columbia Association of Chiropodists—*Secretary:* J. I. Gorosh, D.S.C., 513-514, Birks Building, Vancouver, British Columbia.

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Ontario Academy of Chiropody—*Secretary:* R. S. Woods, 181, Ottawa Street North, Hamilton, Ontario.

Ontario Association of Chiropodists—*Secretary:* Martin L. Cole, D.S.C., 91, Yonge Street, Toronto, Ontario.

PHARMACISTS

Alberta Pharmaceutical Association, Incorporated—*Secretary:* C. W. Pickup, Ingraham Building, Calgary, Alberta.

Canadian Foundation for the Advancement of Pharmacy—*Secretary:* A. E. Laverty, Room 604, 414, St. James Street, Montreal, Province of Quebec.

Canadian Pharmaceutical Association, Incorporated—*Secretary:* J. W. Preston, 100, Adelaide Street West, Toronto, Ontario.

Collège des Pharmaciens de la Province de Québec—*Secretary:* Emile Coderre, Room 57, 534, St. Catherine Street East, Montreal, Province of Quebec.

New Brunswick Pharmaceutical Society—*Secretary:* E. P. Fullerton, 144, Charlotte Street, Saint John, New Brunswick.

Nova Scotia Pharmaceutical Society—*Secretary:* Col. G. S. Kinley, Medical Sciences' Building, Halifax, New Brunswick.

Ontario College of Pharmacy—*Secretary:* H. M. Corbett, 46, Gerrard Street East, Toronto, Ontario.

Pharmaceutical Association of the Province of British Columbia—*Manager:* F. H. Fullerton, 618, Homer Street, Vancouver, British Columbia.

Saskatchewan Pharmaceutical Association—*Registrar:* V. Jansen, 808, McCallum Hill Building, Regina, Saskatchewan.

HOSPITAL AND HOSPITALISATION

Associated Hospitals Services of British Columbia—*Secretary:* A. H. L. Swencisky, 470, Granville Street, Vancouver, British Columbia.

Associated Medical Services, Incorporated—*Director:* Dr. J. A. Hannah, 615, Yonge Street, Toronto, Ontario.

British Columbia Hospitals' Association—*Secretary:* E. W. Neal, P.O. Box 365, Duncan, British Columbia.

Canadian Hospital Council—*Secretary:* Dr. Harvey Agnew, 280, Bloor Street West, Toronto, Ontario.

Catholic Hospital Conference of Alberta—*Secretary:* Rev. Sister M. Annunciata, Mineral Springs Hospital, Banff, Alberta.

Catholic Hospital Conference of Manitoba—*Secretary:* Rev. Sister M. Stanislaus, St. Joseph's Hospital, Winnipeg, Manitoba.

Catholic Hospital Conference of Saskatchewan—*Secretary:* Rev. Sister Paulette Fortier, S.G.M., St. Paul's Hospital, Saskatoon, Saskatchewan.

Catholic Hospital Council of Canada—*Secretary:* Rev. Sister M. St. Elizabeth, 325, St. Catherine Road, Outermont, Montreal, Province of Quebec.

Industrial Health Association (British Columbia)—*Secretary:* E. L. Egan, 208, Holden Building, Vancouver, British Columbia.

Manitoba Hospital Association—*Secretary:* Ernest Gagnon, St. Boniface Hospital, St. Boniface, Manitoba.

Manitoba Hospital Service Association—*Secretary:* L. B. Griffiths, 400, Royal Bank Building, Winnipeg, Manitoba.

Maritime Hospital Service Association—*Secretary:* Miss Ruth C. Wilson, P.O. Box 220, Moncton, New Brunswick.

Medical Services Association—*Secretary:* A. L. McLellan, 423, West Broadway, Vancouver, British Columbia.

National Health Association—*Secretary:* C. Ralph White, 207, West Hastings Street, Vancouver, British Columbia.

Ontario Hospital Association—*Secretary:* Dr. Fred W. Routley, 95, Wellesley Street, Toronto, Ontario.

Quebec Hospital Service Association—*Secretary:* Edgar Genest, 1200, St. Alexandre Street, Montreal, Province of Quebec.

Saskatchewan Hospital Association—*Secretary:* J. Smith, Superintendent, General Hospital, Yorkton, Saskatchewan.

HEALTH ASSOCIATIONS

Association canadienne française des Aveugles, Incorporated—*Secretary:* Herard Gagnier, 900, Beaubien Street East, Montreal, Province of Quebec.

Canadian Association for Health, Physical Education and Recreation—*Secretary:* Hay Finlay, 475, Pine Avenue West, Montreal.

Canadian Institute of Sanitary Inspectors—*Secretary:* George W. Kelly, Health Department, City Hall, Winnipeg, Manitoba.

Canadian National Institute for the Blind—*Director:* E. A. Baker, 186, Beverley Street, Toronto 2B, Ontario.

Canadian Public Health Association—*Director:* Dr. J. H. Baillie, 150, College Street, Toronto 5, Ontario.

Health League of Canada (Province of Quebec Division)—*Director:* Madame Paul Hamel, Room 914, Sun Life Building, Montreal, Province of Quebec.

Health League of Canada (Saskatchewan Division)—*Secretary:* E. W. Lawby, P.O. Box 208, Regina, Saskatchewan.

Nova Scotia Society for Mental Hygiene—*Secretary:* Robert S. Theakston, 150, Henry Street, Halifax, Nova Scotia.

Ontario Health Officers' Association—*Secretary:* Dr. L. A. Pequegnat, Room 311, City Hall, Toronto, Ontario.

OPTOMETRISTS

Alberta Optometric Association—*Secretary:* Angus G. Millar, 104, McFarland Building, Lethbridge, Alberta.

Alumni Association, College of Optometry of Ontario—*Secretary:* G. R. Hearn, 140, St. George Street, Toronto, Ontario.

British Columbia Optometric Association—*Secretary:* A. Edgar Kidd, 809, Birks Building, Vancouver, British Columbia.

Canadian Association of Optometrists—*Secretary:* Edward Bind, 36, St. Clair Avenue West, Toronto, Ontario.

Collège des Optométristes et Opticiens de la Province de Québec—*Secretary:* J. H. L. Hébert, 1674, East Mount-Royal, Montreal, Province of Quebec.

Manitoba Optometric Society—*Secretary:* E. I. Cummings, *c/o* Hudson's Bay Company, Optometry Department, Winnipeg, Manitoba.

New Brunswick Optometrical Society—*Secretary:* Barnes S. Bell, 34, Bonaccord Street, Moncton.

Nova Scotia Optometrical Association—*Secretary:* John J. Mulrooney, 96, Gottingen Street, Halifax, Nova Scotia.

Saskatchewan Optometric Association—*Secretary:* Harold C. Arnold, 210, Birks Building, Saskatoon, Saskatchewan.

PHOTOGRAPHERS

Canadian Society of Photogrammetry—*Secretary:* Andre Cassita, F.E., Quebec, P.O. Box 621, Quebec, Province of Quebec.

Master Photo Finishers' and Dealers' Association—*Secretary:* E. M. Bratton, Box No. 36, Unionville, Ontario.

Ontario Society of Photographers—*Secretary:* Andrew D. Skilling, 206, St. George Street, Toronto, Ontario.

SURVEYORS

Alberta Land-Surveyors' Association—*Secretary:* J. H. Holloway, Department of Public Works, Parliament Buildings, Edmonton, Alberta.

Association of Manitoba Land-Surveyors—*Secretary:* P. Eaton, Survey Department, Civic Offices, Winnipeg, Manitoba.

Association of Ontario Land-Surveyors—*Secretary:* C. H. Fullerton, Room 310, 331, Bay Street, Toronto 1, Ontario.

Canadian Institute of Surveying—*Secretary:* W. L. MacLlquham, 41, Grove Avenue, Ottawa, Ontario.

Corporation des Arpenteurs géomètres de la Province de Québec—*Secretary:* L. N. Boulet, P.O. Box 152, Quebec, Province of Quebec.

Corporation of Land Surveyors of the Province of British Columbia—*Secretary:* H. S. Beckton, 605, Courtney Street, Victoria, British Columbia.

Saskatchewan Land-Surveyors' Association—*Secretary:* T. C. Tyrer, Chief Surveyor, Surveys Branch, Land Titles Office, Regina, Saskatchewan.

VETERINARIANS

British Columbia Veterinary Association—*Secretary:* Dr. G. W. B. Smith, 602, Credit Foncier Building, Vancouver, British Columbia.

Central Canada Veterinary Association—*Secretary:* Dr. H. Konst, Animal Diseases Research Institute, Hull, Province of Quebec.

Collège des Médecins vétérinaires de la Province de Québec—*Secretary:* Dr. Paul Villeneuve, 2018, Jeanne Mance Street, Montreal, Province of Quebec.

Dominion Veterinary Medical Council—*Secretary:* L. A. Gendreau, D.V.M., Sherbrooke, Province of Quebec.

New Brunswick Veterinary Medical Association—*Secretary:* L. S. Doyle, 99, Church Street, Moncton, New Brunswick.

Nova Scotia Veterinary Association—*Secretary:* Dr. E. E. Ballantyne, N.S.A.C., Truro, Nova Scotia.

Ontario Veterinary Association—*Secretary:* G. A. Edge, Box 37, Postal Station F, Toronto, Ontario.

Saskatchewan Veterinary Association—*Secretary:* Dr. A. Chambers, 277, Angus Crescent, Regina, Saskatchewan.

Société de Médecine vétérinaire de la Province de Québec—*Secretary:* Dr. Jean Paquin, Saint-Eustache, Province of Quebec.

Veterinary Association of Manitoba—*Secretary:* Dr. J. M. Isa, University of Manitoba, St. Vital, Manitoba.

Veterinary Medical Association of Alberta—*Secretary:* Dr. J. C. Wainright, 26, Central Building, Calagary, Alberta.

PROFESSIONAL, MISCELLANEOUS

Auctioneers' Association of Alberta—*Secretary:* J. C. Wainright, 26, Central Building, Calgary, Alberta.

Canadian Federation of Business and Professional Women's Clubs—*Secretary:* Miss Sarah Shannon, 90, Queen Street, St. Catherines, Ontario.

Photo Engravers' and Electrotypers' Association of Canada—*Secretary:* W. J. Cannon, 217, Bay Street, Toronto, Ontario.

Canadian Postmasters' Association—*Secretary:* Charles D. Griffith, Estevan, Saskatchewan.

Canadian Association of Physicists—*Secretary:* L. E. MacHattie, Box 51, Station F, Toronto, Ontario.

Chartered Shorthand Reporters' Association of Ontario—*Secretary:* Grydon B. Hagen, Box 153, The Senate, Ottawa, Ontario.

TECHNICAL AND SCIENTIFIC ASSOCIATIONS

American Society for Metals (British Columbia Chapter)—*Secretary:* Fred H. Stephens, 505, Metropolitain Building, Vancouver, British Columbia.

American Society for Metals (Montreal Chapter)—*Secretary:* B. W. McGillivray, P.O. Box 371, Station " H," Montreal, Province of Quebec.

American Society for Metals (Ontario Chapter)—*Secretary:* J. L. Balleny, c/o Canadian General Electric, 212, King Street West, Toronto, Ontario.

American Society for Metals (Ottawa Valley Chapter)—*Secretary:* E. W. Marshall, 16, Fisher Avenue, Ottawa, Ontario.

Association canadienne-française pour l'Avancement des Sciences—*Secretary:* Dr. Pierre Dansereau, University of Montreal, 2900, Mount Royal Boulevard, Montreal, Province of Quebec.

Association of Canadian Clubs—*Secretary:* Mrs. P. A. Wheeler, 172, Wellington Street, Ottawa, Ontario.

Artictic Institute of North America—*Secretary:* Dr. Diamond Jenness, National Museum of Canada, Ottawa, Ontario.

British Columbia Academy of Sciences—*Secretary:* Dr. T. M. G. Taylor, Department of Botany and Zoology, University of British Columbia, Vancouver, British Columbia.

British Columbia Research Council—*Director:* Dr. S. E. Maddigan, University of British Columbia, Vancouver, British Columbia.

Canadian Association of Scientific Workers—*Secretary:* Miss Margaret Callan, Box 228, Ottawa, Ontario.

Canadian Association of Social Workers—*Secretary:* Miss Joy A. Maines, Room 504, 18, Rideau Street, Ottawa, Ontario.

Canadian Institute of International Affairs—*Secretary:* Douglas A. MacLennan, 230, Bloor Street West, Toronto 5, Ontario.

Canadian National Committee of the International Electrotechnical Commission—*Secretary:* A. J. Grant, National Research Council, Ottawa, Ontario.

Canadian Phytopathological Society—*Secretary:* Dr. L. T. Richardson, Division of Botany and Plant Pathology, Central Experimental Farm, Ottawa, Ontario.

Canadian Political Science Association—*Secretary:* C. B. MacPherson, 273, Bloor Street West, Toronto, Ontario.

Canadian Scientific Film Association—*Secretary:* P. Larose, *c/o* National Film Society, 172, Qellington Street, Ottawa, Ontario.

Canadian Social Science Research Council—*Secretary:* John E. Robbins, 166, Marlborough Avenue, Ottawa, Ontario.

Canadian Standards Association—*Director:* W. R. McCaffrey, 3010, National Research Building, Ottawa, Ontario.

Canadian-West Indian League—*Secretary:* H. C. Collier, Room 149, Sun Life Building, Montreal, Province of Quebec.

Citizens' Research Institute of Canada—*Secretary:* Horace L. Brittain, Room 806, 137, Wellington Street, Toronto, Ontario.

Nova Scotian Institute of Science—*Secretary:* Professor W. J. Chute, Ph.D., Dalhousie University, Halifax, Nova Scotia.

Radio Electronic Technicians' Association—*Secretary:* William Artkin, Box 61, Station J, Toronto.

Royal Astronomical Society of Canada—*Address:* E. J. A. Kennedy, 3, Willcocks Street, Toronto 5, Ontario.

Royal Canadian Institute—*Secretary:* Mrs. Florence C. Rawlings, 135, St. Clair Avenue West, Toronto 5, Ontario.

Royal Society of Canada—*Secretary:* Dr. F. J. Alcock, Ph.D., Room 3005, National Research Building, Ottawa, Ontario.

Society of Chemical Industry (**Canadian Section**)—*Secretary:* D. C. Lloyd, P.O. Box 175, Station B, Montreal, Province of Quebec.

Technical Service Council—*Secretary:* Miss Dorothy W. Rapsey, 2, Grosvenor Street, Toronto 5, Ontario.

TRANSPORT ASSOCIATIONS

Air Industries and Transport Association of Canada—*Secretary:* W. B. Burchall, 610, Blackburn Building, Ottawa, Ontario.

Alberta Motor Association (**Central Branch**)—*Address:* 813A, First Street East, Calgary, Alberta.

Alberta Motor Association (**Northern Branch**)—*Secretary:* W. C. Caton, 10189, 100 Street, Edmonton, Alberta.

Alberta Motor Association (**Southern Branch**)—*Address:* Sherlock Building, Lethbridge, Alberta.

Alberta Motor Transport Association—*Secretary:* Jack Taylor, 131, 11th Avenue West, Calgary.

Association des Camionneurs de Quebec, Incorporated—*Secretary:* Frank Glode, Apartment 5, 74, St. Joseph Street, Quebec, Province of Quebec.

Association des Propriétaires d'Autobus de Québec—*Secretary:* Wilbrod Bherer, K.C., 400, Quebec Power Building, Quebec, Province of Quebec.

Automotive Transport Association of British Columbia—*Secretary:* George Butler, 810, 207, West Hastings Street, Vancouver, British Columbia.

Automotive Transport Association of Ontario—*Manager:* J. O. Goodman, 146, Wellington Street West, Toronto 1, Ontario.

British Columbia Automobile Association—*Secretary:* H. Frank Bird, 596, West Georgia Street, Vancouver, British Columbia.

British Columbia Towboat Owners' Association—*Secretary:* H. W. Cameron, Marine Building, Vancouver.

Canadian Automobile Association—*Secretary:* W. G. Robertson, Lumsden Building, 6, Adelaide Street East, Toronto 1, Ontario.

Canadian Automotive Transportation Association—*Secretary:* J. O. Goodman, 146, Wellington Street West, Toronto 1, Ontario.

Canadian Freight Association—*Chairman:* W. M. Matthews, 407, McGill Street, Montreal, Province of Quebec.

Canadian Good Roads Association—*Secretary:* Geo. A. McNamee, 620, Cathcart Street, Montreal 2, Province of Quebec.

Canadian Industrial Traffic League—*Secretary:* J. M. Varty, Room C 37, Union Station, Toronto, Ontario.

Canadian Passenger Association—*Chairman:* J. A. Brass, Room 906, 437, St. James Street West, Montreal, Province of Quebec.

Canadian Passenger Association, Western Lines—*Vice-Chairman:* Roy H. Powers, 320, Union Station, Winnipeg, Manitoba.

Canadian Railway Club, Incorporated—*Secretary:* C. R. Crook, 4415, Marcil Avenue, Montreal.

Canadian Transit Association—*Secretary:* Miss C. J. Clark, 35, Yonge Street, Toronto.

Canadian Warehousemen's Association—*Secretary:* Joseph A. Whitmore, Room 35, 10, Adelaide Street East, Toronto, Ontario.

Club Automobile Québec—*Secretary:* J. E. Renaud, 2, Chauveau Avenue, Quebec, Province of Quebec.

Coastwise Operators' Association of British Columbia—*Secretary:* H. W. Cameron, 355, Burrard Street, Vancouver, British Columbia.

Dominion Marine Association—*Secretary:* Geo. R. Donovan, 36, Toronto Street, Toronto.

Dominion Motor Coach Association—*Secretary:* R. J. Musgrove, Gray Coach Lines, Ltd., 35, Yonge Street, Toronto, Ontario.

Express Traffic Association of Canada—*Manager:* G. H. Griffin, 885, Lagauchetiere Street West, Montreal, Province of Quebec.

Federal Association of Taxicab Owners, Incorporated—*Secretary:* J. Ross Sheppard, 251, Queen Street East, Toronto, Ontario.

Federation of Automotive Transport Associations of the Province of Quebec—*Joint Secretaries:* S. R. Altrows, Camille Archambault, and Frank Glode, 511, Place d'Armes, Montreal, Province of Quebec.

International Air Transport Association—*Secretary:* Thomas W. Caffey, 317, Central Station Building, Montreal, Province of Quebec.

Lake Shippers' Clearance Association—*Secretary:* G. H. Page, 667, Grain Exchange, Winnipeg, Manitoba.

Manitoba Motor League—*Secretary:* A. C. Emmett, Graham and Garry Sts., Winnipeg, Manitoba.

National Aeronautical Association of Canada, Incorporated—*Secretary:* Sqn.-Ldr. Walter W. McKeown, Room 442, Confederation Life Building, 17, Queen Street East, Toronto, Ontario.

Ontario Association of Motor Coach Operators—*Secretary:* R. J. Musgrove, Gray Coach Lines, Ltd., 35, Yonge Street, Toronto, Ontario.

Ontario Motor League—*Secretary:* W. G. Robertson, 6, Adelaide Street East, Toronto 1, Ontario.

Ontario Motor Truck Owners' Association—*Secretary:* W. G. Robertson, 6, Adelaide Street East, Toronto 1, Ontario.

Ontario Movers' Association—*Secretary:* A. M. Robertson, 75, Elm Street, Toronto, Ontario.

Railway Association of Canada—*Secretary:* J. A. Brass, 437, St. James Street West, Montreal, Province of Quebec.

Royal Automobile Club of Canada—*Secretary:* George A. McNamee, 620, Cathcart Street, Montreal, Province of Quebec.

Royal Canadian Flying Clubs' Association—*Secretary:* D. L. Buchanan, 309, Journal Building, Ottawa, Ontario.

Saskatchewan Motor Club (Northern Division)—*Secretary:* R. G. Armstrong, 114, Third Avenue South, Saskatoon, Saskatchewan.

Saskatchewan Motor Club (Regina Branch)—*Manager:* L. J. Longpre, 1837, Broad Street, Regina, Saskatchewan.

Saskatchewan Motor Transport Association—*Secretary:* C. Gamble, 6, Victoria Park Building, Regina.

Shipping Federation of Canada, Incorporated—*Secretary:* C. T. Mearns, Room 218, Board of Trade Building, 300, St. Sacrement Street, Montreal, Province of Quebec.

Shipping Federation of British Columbia—*Secretary:* A. Scott, c/o Terminal Dock and Warehouse Co., Ltd., P.O. Box 40, Vancouver, British Columbia.

Shipping Men's Association of British Columbia—*Secretary:* F. W. Jackson, Room 209, C.P.R. Station, Vancouver, British Columbia.

WHOLESALE DISTRIBUTORS, EXPORTERS AND IMPORTERS ASSOCIATIONS

Automotive National Distributors' Association—*Secretary:* L. P. Monahan, 191, Queen Street East, Toronto, Ontario.

British Columbia Tobacco and Candy Jobbers' Association—*Secretary:* A. Badenoch, 1111, Dominion Bank Building, Vancouver, British Columbia.

Canadian Atlantic Salt Fish Exporters' Association—*Secretary:* J. M. McKee, P.O. Box 71, Halifax, Nova Scotia.

Canadian Electrical Distributors' Association—*Secretary:* R. Edmunds, Room 67, Yonge Street Arcade, Toronto 1, Ontario.

Canadian Exporters' Association—*Secretary:* A. F. Telfer, 20, Temperance Street, Toronto, Ontario.

Canadian Importers' and Traders' Association, Incorporated—*Secretary:* A. W. G. Farwell, 9, Duke Street, Toronto.

Food Brokers' Association of Canada—*Secretary:* J. S. Mackenzie, National Storage Building, Winnipeg, Manitoba.

Food Distributors of Manitoba and Western Canada—*Secretary:* H. Moore, 315, McIntyre Building, Winnipeg.

Manitoba Tobacco Jobbers' Association—*Secretary:* A. E. Godswark, 611, Confederation Life Building, Winnipeg, Manitoba.

Maritime Fruit and Vegetable Jobbers' Association—*Secretary:* Ralph DeYoung, c/o DeYoung's Ltd., Sydney, Nova Scotia.

Ontario Wholesale Tobacco Distributors', Incorporated—*Secretary:* W. J. Phenix, 137, Wellington Street West, Toronto, Ontario.

Province of Quebec Wholesale Tobacco Distributors' Association—*President:* E. J. Gagnon, 232, St. James Street West, Montreal, Province of Quebec.

Western Tobacco and Confectionery Wholesalers' Association—*Secretary:* c/o Hodder and Moffitt, 609, Lombard Building, Winnipeg, Manitoba.

SOURCES OF OFFICIAL INFORMATION ON CANADA

SOURCES OF DOMINION GENERAL INFORMATION

THE chief source of statistical information on all phases of the economy of Canada is the Dominion Bureau of Statistics where the decennial and quinquennial censuses are planned and statistical information of all kinds—Dominion and Provincial—is centralised. In regard to information that is not mainly statistical the individual Departments concerned with the particular subject is indicated in the Directory of Sources of Official Information for all Departments (Dominion and Provincial). Certain Government bodies and National Agencies, because of the nature of their work and the appeal it has to broad sections of the population, are organised primarily as information or publicity agencies. Among these are the Information Division of the Department of External Affairs (formerly known as the Canadian Information Service), the Canadian Broadcasting Corporation, and the National Film Board. The Departments of Agriculture and Mines and Resources, while not thus classed, are interested in the dissemination of information to a greater extent than most other Government Departments, and several other Departments have Publicity Branches or Public Relations Divisions.

All Government Departments, with few exceptions, issue their own lists of reports and publications. They must, according to statute, publish Annual Reports each year which are tabled in the House of Commons by their respective Ministers. However, for the purpose of this Section, the descriptions given below are limited to the four special publicity services specified in the first paragraph above. On the other hand, the Directory of Sources of Official Information for all Departments (Dominion and Provincial), has been prepared with the purpose of presenting to the reader a Directory of all sources of information, Dominion and Provincial. This, it is hoped, will direct the reader who is not in touch with governmental organisation to the proper channels from which he can draw material relating to any particular subject.

The Dominion Bureau of Statistics

The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43).* The Act was a consolidation of all previous statistical legislation and was based on the report of a Commission on Statistics, appointed in 1912, which recommended (1) a series of specific reforms and enlargements in Canadian statistics, and (2) a policy of statistical co-ordination for the Dominion, under central direction. In 1915, following the recommendations in this Report, the office of Dominion Statistician was created but it was not until 1918 that the recommendations of the Commission were embodied in legislation.

The chief aims of the Bureau of Statistics are:—

(1) To furnish factual data for administration and government.

(2) To assist in developing Canada as a well-informed nation by standing ready to help business men and individuals to plan their enterprises and their lives.

It is in regard to the second of these aims that this review is concerned.

Inquiries

Literally, hundreds of individual requests for specific information are received in the Bureau each day, routed through the main Divisions and answered as expeditiously as possible. Since the field of effort covers, from the statistical side, all phases of the national economy, there is scarcely a subject upon which the Bureau is not able to give some information. This will be emphasised from a glance at the Directory following. Nevertheless, it is only in regard to statistical questions that inquiries should be directed to this Bureau.

Publications

The Dominion Bureau of Statistics is the largest publishing department of the Federal Government: the subjects of its reports cover all phases of the national economy. Items in the vote of the Bureau, passed by Parliament each year, provide limited funds for the printing and processing of reports and bulletins. Reports printed from type are set up by the King's Printer, but the Bureau itself operates its own offset printing presses and all processed reports and bulletins are completely printed as well as published by the Bureau of Statistics.

The present policy with regard to the distribution of publications is based on sales to the public at actual cost of paper and presswork only; compilation, editing and other overhead costs are not included. The object is to extend the service to the public as widely as possible and so spread the compilation and overhead, which are the big items in total costs. A special subscription rate of $30 per year entitles the subscriber to receive a copy of each publication as issued, with the exception of news bulletins. Other special rates are set for series of publications in related groups such as:—

1. Administration
2. Agricultural Production
3. Economic and Business Conditions
4. Education
5. Finance
6. Industrial Production
7. Labour and Prices, Unemployment and Earnings
8. Population
9. Trade, Domestic (including Merchandising) and Foreign
10. Transportation, Communications and Public Utilities
11. Vital Statistics, Criminal Statistics, and Welfare Institutions
12. General

Applications for reports should be sent to the Bureau of Statistics; they should indicate the individual publication or series of reports in which the applicant is interested and include the necessary remittance in the form of a cheque or money-order made payable to the Receiver General of Canada, Ottawa.

Information Division, Department of External Affairs

The Information Division was established in its present form early in 1947 by the integration of the former Canadian Information Service into the Department. The Canadian Information Service in turn developed from the Wartime Information Service which was set up in the early years of the War of 1939-45.

The former C.I.S. functions of collecting information in many forms and supplying Canadian representatives abroad with up-to-date data about Canadian events, background material on happenings in Canada, etc., are continued by this Division. An Inquiry Service is operated which answers general questions about Canada received from abroad, and particular questions about matters of departmental concern received from within Canada. Reference materials, photographs, posters, and other graphic materials for distribution outside Canada are prepared, and books on Canada are procured for use in reference libraries abroad. Facilities are arranged for journalists visiting Canada and for Canadian speakers abroad, and cultural relations projects are encouraged. In addition to routine duties of arranging departmental press conferences, preparing press releases and obtaining information for the Department's use, the Information Division is frequently responsible for Canadian press relations at international conferences, both in Canada and elsewhere. In general, the activities of the agencies engaged in disseminating Canadian information abroad are co-ordinated by this Division.

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* Consolidated as the Statistics Act (c. 190, R.S.C., 1927).

This Division works through information officers in Canadian missions at New York, London, Washington, Paris, and Canberra, and through Canadian representatives in diplomatic and trade missions in other centres.

Canadian Broadcasting Corporation

Since radio broadcasting was made possible by progress in the field of wireless telegraphy following the War of 1914-18, this medium has become a rival means of giving information to the public along with newspapers, films and other means of communication. This is true in all countries whether, as in the United States, the systems are privately owned or whether, as in Canada and the United Kingdom, they are organised on a national basis.

The Canadian Broadcasting Corporation, since its establishment in 1936, has indeed become one of the most effective channels through which information, official and unofficial, is broadcast to the Canadian people. Because of the widely distributed population, especially of the sparsely peopled areas of the northwest and the far north, radio is relatively more important to Canada than to any other people. Without it the country could not be so effectively linked as it is, for to-day the posts of the far north can receive their news and enjoy the entertainments that the radio provides equally with their fellow citizens living in Halifax, N.S., Montreal, Que., or Vancouver, B.C.

News broadcasts and programmes occupy a considerable proportion of national and regional network time. They include news, drama, informative talks, children's programmes, religious programmes, public services broadcasts, sports, women's activities, etc.

An important development that the War has brought about has been the world coverage of news broadcasts from international centres that are picked up by the C.B.C. short-wave receiving stations and rebroadcast to Canadian listeners. Thus it is that C.B.C. is taking its rightful place among the official sources of information available to Canadians.

Through the International Shortwave Service operated by the C.B.C., programmes are broadcast daily in ten languages: English, French, Czech, Dutch, Danish, Norwegian, Swedish, German, Spanish and Portuguese. The transmitters are located at Sackville, N.B., and the programmes are beamed to Europe, the West Indies, Central and South America. By this service, information on life in Canada and on economic conditions is broadcast abroad as part of the general information plan in promoting a better understanding of Canada in other countries.

National Film Board

The Canadian Government, through the National Film Board, produces films, filmstrips, photographs, photo displays, posters, wallhangers, booklets, and other graphic material for distribution in Canada and abroad.

The Board produces one or more monthly theatrical releases in English and French for distribution to theatres throughout Canada. An extensive non-theatrical distribution is maintained through the medium of rural circuits operating in every province, and through film libraries in all major urban centres. To service the field, regional offices are maintained in every province.

Newsreel stories dealing with many aspects of Canadian life are also produced by the Board for inclusion in the newsreels which are distributed throughout the world by the principal newsreeel companies in New York, U.S.A., and London, England. The National Film Board's technicians keep abreast of recent developments in colour production, stereoscopic films and television. Many Canadian films are featured on television programmes in the United States and the United Kingdom.

In addition to films and other graphic materials produced in the English and French languages, the Board has produced or secured the production of Canadian films in French for distribution in France and her colonies; in Spanish for Spain and Latin America; in Portuguese for Brazil, Portugal, Portuguese West Africa and Portuguese Guinea; in Danish for Scandinavia, Greenland and Iceland; in Dutch for the Netherlands, the Netherlands East Indies and the Netherlands West Indies; in German for Switzerland, Austria and the British and American occupied zones of Germany; in Russian and Ukrainian for the U.S.S.R.; in Turkish for Turkey, and in Arabic for Egypt, Tripolitania, Cyrenaica, Lebanon, Syria and Iraq.

The Distribution Division in Ottawa directs the flow of all N.F.B. films through National Film Board offices in London, England; New York, Chicago and Washington in the United States; Sydney, Australia and Mexico City, Mexico; through Canadian Embassies, Legations, Trade Commissions, and Information Offices in other countries; and through professional theatrical and non-theatrical distributors within all these territories.

The Board maintains a photographic library of more than 80,000 negatives covering many aspects of Canada, its landscape, resources, industries, agriculture and the national life and character of the Canadian people. Its photographs are distributed to Government Departments, tourist bureaus, newspapers, magazines and publishing houses within Canada and to Trade Commissioners and other representatives abroad who may request them.

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION FOR ALL DEPARTMENTS (DOMINION AND PROVINCIAL)

The chapter on Sources of Official Information included in editions of the Canada Year Book prior to 1946 has been taken up, for the main part, by detailed lists of publications issued by the Dominion Government Departments and the Provincial Government Departments. Such lists as these were of value to readers since the Year Book was the only place where publications of this kind were brought together. The rapid increase in the number of printed reports, bulletins and maps that has characterised all publicity efforts in recent years has made it increasingly difficult to spare the space in the Year Book to carry such detailed listings.

Moreover, since the Year Book lists have been prepared and published on a Departmental basis, they have been less and less convenient to the reader as the lists have increased in length. For instance, several Departments issue reports that can be classified under the broad heading of Agriculture—among these are the Department of Agriculture, the Dominion Bureau of Statistics and the National Research Council, not to mention the Northwest Territories and Yukon Administration which administers all the resources of those areas.

Without a subject cross-index, it is very difficult for the reader, unless he works carefully through the individual lists (which requires much time and labour), to know just where to go for information he desires under a certain subject heading. Again, the space that can be spared for individual lists does not admit of setting out the material in easily readable form. The size of type as set up in past editions was much too small for convenient reading and revisions could be made only once a year at best although, as a rule, such lists are subject to very frequent change.

The King's Printer, Ottawa, now publishes an Official List of all Government publications printed from type. This list, which may be obtained free of charge, is revised at regular intervals and is classified on a subject basis, as well as being adequately cross-referenced. Moreover, most Federal and Provincial Departments that put out near-print publications (either in mimeographed or rotaprinted form) issue lists of these free to the public and very often such lists include the printed publications published by the same Departments, and available through the King's Printer. Such individual lists are far more up to date and are listed and classified for more convenient reference than space in the Year Book will allow.

Apart from the question of publications, however, there is a growing volume of inquiries received from the public relative to all manner of subjects. This also makes it desirable to devise some means of guiding the public to the source of information on specific matters. Very few people are acquainted with internal government organisation and it is not surprising that inquiries have very often to be routed and rerouted several times before they get to their intended destination.

For these reasons, it is now felt that this Chapter of the Year Book can best fill its function by serving as a Directory by means of which the reader is led to the basic sources of information in a particular field. With this in view, the following subject analysis of Federal and Provincial sources of information has been prepared.

To make best use of this Directory it is necessary, that the reader understand broadly the differences in function between Federal and Provincial Departments and their separate fields of work. For instance, the inquirer who seeks information on forestry may direct his correspondence to either the Dominion Forest Service or the Dominion Bureau of Statistics on the one hand, or to one or all of the Provincial Departments administering the forest resources of the Provinces on the other.

Certain fields of effort, such as Trade and Commerce, Customs and Excise, Currency and Banking, Navigation, Transportation, Radio, Census of Population, National Defence, etc., are, constitutionally, Federal matters and in such fields the respective Departments at Ottawa are the proper sources with which to communicate. The written constitution of Canada (the British North America Act) has allocated the administration of the important and basic fields of lands and natural resources to the Provinces. The Provinces are also supreme in education, roads and and highways, health and hospitals, although there is a considerable area of overlap, since the Federal Departments, especially the Dominion Bureau of Statistics, co-ordinate the picture for Canada as a whole in these fields.

As a general guide to the public, it may be pointed out that for questions that relate to the actual development and administration of resources in the provinces, inquiries should be forwarded to the particular Provinces concerned. The Federal Government, while not administering provincial resources, co-operates closely with the Provinces and is in a position to furnish over-all material for Canada, especially production data, on a national basis, marketing data on international, national and provincial bases, research work and experimental station data on a national basis, and also on a provincial basis from Federal Government stations located within particular Provinces. In agriculture, for instance, data on the breeding of live stock and the improvement of strains, on agricultural marketing and crop yields are cases in point—in forestry, questions of forest research, forest fire protection and reforestation offer good examples. Where inquiries are directed to Federal sources, they should, as a general rule, be sent to the individual Departments listed in the Directory for information not of a statistical nature but, whatever the subject, where the information required is clearly statistical, they should be addressed to the Dominion Bureau of Statistics.

Bearing these points in mind, the interested reader will be able to apply the information given in the Directory to best advantage.

In the Directory, symbols are set against individual sources of information to give special information such as availability of detailed lists of publications, the costs of such lists (in cases where a charge is made), or information of other kinds. All Departments of Government whether Federal or Provincial stand ready and prepared to furnish, by letter or otherwise, information in their respective fields, free of charge, although where special compilations are called for, a nominal fee is sometimes made.

The address for all Federal Departments is Ottawa, Ontario. Inquiries forwarded to Provincial Government Departments should be addressed to the provincial capitals concerned. These are:—

Prince Edward Island	Charlottetown
Nova Scotia	Halifax
New Brunswick	Fredericton
Quebec	Quebec
Ontario	Toronto
Manitoba	Winnipeg
Saskatchewan	Regina
Alberta	Edmonton
British Columbia	Victoria

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION

▲ Most publications of Federal Departments printed from type are purchasable from the King's Printer who publishes a current list. Photographs, films and displays may be purchased from the National Film Board at prices obtainable on application. Most Provincial Government printed publications may be obtained from the King's Printers of the provinces. For addresses of Provincial Governments see text immediately preceding this Directory.

☐ Near-printed and mimeographed reports free or purchasable from this Department or Branch, particulars on application.

○ Directory of Departmental Organisations and Activities available from the Federal or Provincial Department on request.

● List of Publications available free of charge on request from Federal or Provincial Departments concerned. (In the case of the Labour Department a list of publications is given in the *Labour Gazette*).

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
(*Unless otherwise indicated the location of the Department or Branch is Ottawa, Ont.*).		(*For seats of Provincial Governments see list immediately preceding this Directory*).
☐● Dominion Bureau of Statistics ● Department of Mines and Resources Information Service ● Department of External Affairs Information Division (deals with questions about the Department originating in Canada, and with general requests originating in all countries outside Canada). ☐● National Film Board—(films, filmstrips, posters, photo displays, photographs on all subjects).	**BROAD GENERAL INFORMATION ON CANADA'S RESOURCES AND INSTITUTIONS**	For broad general information in regard to particular Provinces application should be made to: **P.E.I.,** Publicity and Travel Bureau; **N.S.,** Dept. of Industry and Publicity; **N.B.,** Dept. of Industry and Reconstruction or Dept. of Provincial Secretary-Treasurer; **Que.,** Bureau of Statistics; **Ont.,** Bureau of Statistics and Research, or Publicity Branch; **Man.,** Travel and Publicity Bureau and Dept. of Provincial Secretary; **Sask.,** Bureau of Publications; **Alta.,** Publicity and Promotion Office, Alberta Travel Bureau, or Bureau of Statistics; and **B.C.,** Bureau of Economics and Statistics.
☐○● Department of Agriculture Publicity and Extension Division Experimental Farms Service (stations and farms throughout Canada) ☐● Department of Mines and Resources (for North-west Territories and Yukon and farming on Indian Reservations) Department of Veterans Affairs (Veterans only) Department of Finance (for farm improvement loans and long-term mortgage loans) ☐● National Film Board (films, photo displays, photographs) ☐● Dominion Bureau of Statistics	**AGRICULTURE GENERAL AND FARMING**	All Provinces except **Que., Ont., Man.:**—Dept. of Agriculture **Que.:**—Dept. of Agriculture, Information and Research Branch Dept. of Industry and Commerce Provincial Bureau of Statistics **Ont.:**—Dept. of Agriculture, Publicity Branch Bureau of Statistics and Research **Man.:**—Dept. of Agriculture, Publications Branch and Extension *Additional:* **Alta.** and **B.C.:**—Provincial Bureaus of Statistics Dominion Bureau of Statistics (summaries of provincial data) ●☐
☐● Department of Mines and Natural Resources Mines and Natura Branch Indian Affairs Branch (Indian handicrafts) National Gallery of Canada ☐● National Film Board (films and filmstrips) Department of Veterans Affairs (Veterans only)	**ART AND HANDICRAFTS**	**N.S.:**—Dept. of Industry and Publicity (for handicrafts and home industry) Nova Scotia College of Art **N.B.:**—Dept. of Industry and Reconstruction, Handicraft Division The New Brunswick Museum (Saint John) **Que.:**—Provincial Secretary (rural handicrafts) **Ont.:**—Royal Ontario Museum Dept. of Planning and Development, Trade and Industry Branch **Man.:**—Dept. of Agriculture (handicrafts) **Alta.:**—Dept. of Economic Affairs (cultural activities) **B.C.:**—Provincial Museum (Indian handicrafts)
● Department of Transport Civil Aviation Division (all matters affecting controls, licences and facilities) Trans-Canada Air Lines Department of National Defence Directorate of Public Relations (Air Force) ☐● National Film Board (films and photographs)	**AVIATION**	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
Bank of Canada Industrial Development Bank Department of Finance Department of Insurance (for trust and loan business) Department of Reconstruction and Supply Central Mortgage and Housing Corporation Post Office Department Savings Branch □● Dominion Bureau of Statistics (for summary statistics)	**BANKING** **Trust and Loan Companies**	**Ont.:**—Province of Ontario Savings Office Bureau of Statistics and Research **Alta.:**—Government of Alberta Treasury Branches Dominion Bureau of Statistics (summaries of provincial data) ●□
Department of Public Works Chief Architect's Branch Department of Reconstruction and Supply Central Mortgage and Housing Corporation □● Dominion Bureau of Statistics	**BUILDING CONSTRUCTION**	**Ont.:**—Dept. of Labour, Factory Inspection Branch Dept. of Planning and Development, Community Planning Branch Dominion Bureau of Statistics (summaries of provincial data) ●□
● Department of Transport Canal Services □● Dominion Bureau of Statistics	**CANALS**	
	CIVIL AVIATION **See Aviation**	
□● Department of Mines and Resources Mines and Geology Branch □● National Film Board (films, filmstrips, photographs) □● Dominion Bureau of Statistics	**COAL**	**N.S., Que., Ont., B.C.:**—Dept. of Mines **N.B., Alta.:**—Dept. of Lands and Mines **Sask.:**—Dept. of Natural Resources and Industrial Development **Man.:**—Dept. of Mines and Natural Resources Dominion Bureau of Statistics (summaries of provincial data) ●□
□● Department of Mines and Resources Lands, Parks and Forests Branch (for wireless communications in North-wes tTerritories and Yukon, and Telephones in National Parks) ● Department of Transport Radio Division Department of Public Works Telegraph Branch (provides telegraph service in remote areas) □● Dominion Bureau of Statistics	**COMMUNICATIONS** *For* **Post Office** *and* **Mail** *See* **Post Office**	**Ont.:**—Municipal Board and Bureau of Statistics and Research **Man.:**—Manitoba Telephone System **Sask.:**—Dept. of Telephone and Telegraphs **Alta.:**—Dept. of Railways and Telephones
Federal District Commission	**COMMUNITY PLANNING**	**Ont.:**—Dept. of Planning and Development, Community Planning Branch
□● Department of Mines and Resources Lands, Parks and Forests Branch Advisory Board on Wild Life Protection (interdepartmental) Federal District Commission	**CONSERVATION**	**P.E.I.:**—Provincial Secretary-Treasurer **N.S.:**—Dept. of Lands and Forests **N.B.:**—Dept. of Lands and Mines **Que.:**—Dept. of Lands and Forests Dept. of Game and Fisheries Dept. of Hydraulic Resources **Ont.:**—Dept. of Lands and Forests Dept. of Planning and Development, Conservation Branch **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development **Alta.:**—Dept. of Lands and Mines **B.C.:**—Dept. of Lands and Forests
● Department of External Affairs Information Division Secretary of State Department Privy Council □● Dominion Bureau of Statistics	**CONSTITUTION**	All Provinces except **Man.:**—Depts. of Attorney-General **Man.:**—Provincial-Secretary
□● Dominion Bureau of Statistics	**COST OF LIVING**	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
Department of Justice Clemency and Penitentiaries Branch ☐● Dominion Bureau of Statistics	**CRIME AND DELINQUENCY**	All Provinces:—Depts. of Attorney-General *Additional:*—**N.S.**:—Dept. of Public Welfare **Ont.:**—Dept. of Reform Institutions
Bank of Canada Department of Finance Royal Mint ☐● Dominion Bureau of Statistics	**CURRENCY**	
☐○● Department of Agriculture Dairy Products Division Bacteriology and Dairy Research Division ☐● Dominion Bureau of Statistics	**DAIRYING**	**P.E.I., N.S.:**—Depts. of Agriculture **N.B., Ont., Alta., B.C.:**—Depts. of Agriculture, Dairy Branches (also Milk Control Board for **Ont.**) **Que., Sask.:**—Depts of Agriculture, Dairy Commissions **Man.:**—Dept. of Agriculture, Milk Control Board Dominion Bureau of Statistics (summaries of provincial data) ●☐
Department of National Defence Naval Information Division Directorate of Public Relations (Army) Directorate of Public Relations (Air Force) ☐● National Film Board (films and photographs) Reconstruction and Supply Publicity Branch (*re* Canadian Arsenals Limited)	**DEFENCE**	
Bank of Canada Department of Reconstruction and Supply Economic Research Branch ● Department of Labour Research and Statistics Branch Legislation Branch ☐● Department of Mines and Resources Mines and Geology Branch (industrial minerals) ☐○● Department of Agriculture Economics Division ☐● Dominion Bureau of Statistics	**ECONOMIC RESEARCH**	**N.S.:**—Nova Scotia Research Foundation **N.B.:**—Dept. of Industry and Reconstruction **Ont.:**—Bureau of Statistics and Research **Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce Economic Advisor, Executive Council **Alta.:**—Dept. of Economic Affairs **Sask.:**—Economic Advisory and Planning Board
☐● Department of Mines and Resources Indian Affairs Branch ☐● Department of National Health and Welfare Department of Veterans Affairs (Veterans only) ● Department of Labour Canadian Vocational Training Branch ☐● Dominion Bureau of Statistics	**EDUCATION** *For* **Informational Films** *See* **Motion Pictures**	**All Provinces:**—Depts. of Education (Technical, Visual and Audio Education)
☐● Department of Mines and Resources Surveys and Engineering Branch ☐● National Film Board (films, filmstrips and photographs) ☐● Dominion Bureau of Statistics (for Central Electric Stations)	**ELECTRIC POWER**	**P.E.I.:**—Public Utility Commission **N.B.:**—Electric Power Commission (Saint John) **N.S., Man., Sask., Alta., B.C.:**—Power Commissions **Ont.:**—Hydro-Electric Power Commission **Que.:**—Hydro-Electric Commission
● Department of Labour National Employment Service Research and Statistics Branch ☐● Dominion Bureau of Statistics	**EMPLOYMENT**	**Que.:**—Dept. of Labour, Provincial Employment Bureau
Canadian Government Exhibition Commission	**EXHIBITIONS**	
☐● Department of Mines and Resources Mines and Geology Branch	**EXPLOSIVES**	
☐○● Department of Agriculture Experimental Farms Service, Field Husbandry Division ☐● National Film Board (film and photographs) ☐● Dominion Bureau of Statistics	**FIELD CROPS**	**P.E.I., N.S., N.B., Que., Man.:**—Depts. of Agriculture **Ont.:**—Dept. of Agriculture, Crops, Seeds and Weeds Branch **Sask., Alta., B.C.:**—Depts. of Agriculture Field Crop Branches

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
Department of Finance Bank of Canada ☐● Dominion Bureau of Statistics	**FINANCE (Government)**	**P.E.I.:**—Provincial Secretary-Treasurer **N.S., N.B.:**—Depts. of Provincial Treasurer **Que.:**—Provincial Treasury Dept. **Ont.:**—Provincial Treasurer's Dept. **Man., Sask., Alta.:**—Treasury Depts. **B.C.:**—Dept. of Finance
Dominion Fire Prevention Association (for fire loss statistics) ☐● Department of Mines and Resources Dominion Forest Service Board of Transport Commissioners (for inquiries regarding forest fire protection along railway lines)	**FIRE PREVENTION**	**All Provinces :**—Provincial Fire Marshals (for provincial fire loss statistics) **N.S.:**—Dept. of Lands and Forests **N.B.:**—Dept. of Lands and Mines **Que.:**—Dept. of Lands and Forests Forest Protection Service **Ont.:**—Dept. of Lands and Forests Forest Protection Division **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development **Alta.:**—Dept. of Lands and Mines **B.C.:**—Dept. of Lands and Forests
● Department of Fisheries Information Branch Fisheries Research Board of Canada ☐● National Film Board (films, photo-displays, photographs) ☐● Dominion Bureau of Statistics	**FISHERIES**	**P.E.I.:**—Dept. of Industry and Natural Resources **N.S.:**—Dept. of Industry and Publicity, Fisheries Division **N.B.:**—Dept. of Industry and Reconstruction Fisheries Branch **Que.:**—Dept. of Game and Fisheries **Ont.:**—Dept. of Lands and Forests Fish and Wildlife Division **Man.:**—Dept. of Mines and Natural Resources Game and Fisheries Branch **Sask.:**—Dept. of Natural Resources and Industrial Development Fisheries Branch **Alta.:**—Dept. of Lands and Mines Fish and Game Branch **B.C.:**—Dept. of Fisheries
Foreign Exchange Control Board	**FOREIGN EXCHANGE**	
☐● Departments of Mines and Resources Lands, Parks and Forests Branch ☐● National Film Board (films, filmstrips, photo-displays and photographs) ☐● Dominion Bureau of Statistics	**FOREST RESOURCES**	**P.E.I.:**—Dept. of Reconstruction **N.S., Que., Ont., B.C.:**—Depts. of Lands and Forests **N.B., Alta.:**—Dept. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development
	FRUIT *See* **Horticulture**	
	FUEL *See* **Coal, Oil, Forest Resources**	
☐○● Department of Agriculture Marketing Service (fur grading) Experimental Farms Service (for fur ranches) ☐● National Film Board (photographs) ☐● Dominion Bureau of Statistics (for general fur products statistics)	**FUR FARMING** *See* **Trapping**	**P.E.I., N.B., Que., Alta., B.C.:**— Dept. of Agriculture **N.S., Ont.:**—Depts. of Lands and Forests **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources
☐● Department of Mines and Resources Geographic Board of Canada	**GEOGRAPHY**	
☐● Department of Mines and Resources Mines and Geology Branch	**GEOLOGY**	**N.S., B.C.:**—Depts. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Que.:**—Dept. of Mines Geological Surveys Branch **Ont.:**—Dept. of Mines Geological Branch **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
● Department of External Affairs Information Division Secretary of State (Dominion-Provincial channel of communication Chief Electoral Office (Electoral Act and Voting Lists) Office of the Privy Council (Cabinet and Ministerial Committees)	**GOVERNMENT** *For* **House of Commons, Senate of Canada,** *and* **Library of Parliament** *See* **Parliament**	**P.E.I.:**—Provincial Secretary-Treasurer **N.S., Ont., Man., Sask., Alta., B.C.:**—Depts. of Provincial Secretary **N.B.:**—Dept. of Provincial Secretary-Treasurer **Que.:**—Office of Provincial Secretary
□● Department of National Health and Welfare (covers all braches of health such as Child and Maternal Health, Dental Health, Industrial Health, Public Health, Engineering, Venereal Diseases, etc.—*see* also under " nutrition ")	**HEALTH**	**P.E.I.:**—Dept. of Health and Welfare **N.S., Sask., Alta.:**—Depts. of Public Health **N.B.:**—Dept. of Health and Social Services **Que., Ont., B.C.:**—Depts. of Health **Man.:**—Dept. of Health and Public Welfare
	HIGHWAYS *See* **Transportation**	
□● Dominion Archives □● Department of Mines and Resources Lands, Parks and Forests Branch (for historic sites and momuments) □● Dominion Bureau of Statistics	**HISTORY**	**Ont.:**—Legislative Library Bureau of Statistics and Research **Man.:**—Provincial Library and Archives **B.C.:**—Provincial Archivist, Dept. of Education
□○● Department of Agriculture Fruit and Vegetable Division Experimental Farms Service, Horticulture Division □● Dominion Bureau of Statistics	**HORTICULTURE**	**P.E.I.:**—Dept. of Agriculture **N.S., N.B., Que., Alta., B.C.:**—Depts. of Agriculture, Horticultural Branches **Que.:**—Dept. of Agriculture, Fruit Branch **Ont.:**—Dept. of Agriculture, Agriculture and Horticulture Branches **Man.:**—Dept. of Agriculture
	HOUSING *See* **Building Construction**	
□● Department of Mines and Resources Immigrant Branch, Ottawa District Superintendent of Immigration, Winnipeg District Superintendent of Immigration, Vancouver □● Dominion Bureau of Statistics	**IMMIGRATION**	**Ont.:**—Dept. of Planning and Development Dept. of Provincial Secretary **Man.:**—Dept. of Agriculture and Immigration Dominion Bureau of Statistics (summaries of provincial data)
	INDUSTRIAL DEVELOPMENT *See* **Manufacturing**	
Department of Insurance (for Dominion Companies) ● Department of Labour Annuities Branch Department of Veterans Affairs Veterans Insurance Branch Department of Trade and Commerce Export Credits Insurance Corporation □● Dominion Bureau of Statistics (summary statistics of all types of insurance)	**INSURANCE** **LIFE, FIRE, ETC.** *For* **Unemployment Insurance** *See* **Labour**	**P.E.I., N.S., N.B., B.C.** (for Provincial Companies) :—Superintendents of Insurance **Que.** (for Provincial Companies):— Provincial Treasury Dept., Insurance Branch **Ont.** (for Provincial Companies):—Dept. Of Insurance **Man.** (for Provincial Companies):—Dept. of Public Works, Superintendent of Insurance **Sask.** (for Provincial Companies):—Dept. of Social Welfare Government Insurance Office **Alta.** (for Provincial Companies):—Dept. of Economic Affairs, Alberta Government Insurance Office
Department of Reconstruction and Supply Publicity Branch (*re* Steel Control) □● National Film Board (films and photographs) □● Dominion Bureau of Statistics Manufactures Branch	**IRON AND STEEL**	**Ont.:**—Dept. of Planning and Development, Trade and Industry Branch, Bureau of Statistics and Research

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
● Department of Labour Information and Publicity Branch Annuities Branch Legislation Branch Unemployment Insurance Commission Research and Statistics Branch (unemployment, labour organisation and wages, etc.) Canadian Vocational Training Branch Industrial Relations Branch (fair wages) National Employment Service □● Dominion Bureau of Statistics	**LABOUR**	**N.S., N.B., Que., Ont., Man., Sask., B.C.:**—Depts. of Labour **Alta.:**—Dept. of Trade and Industry Board of Industrial Relations *Additional:*—**Que., Ont., Alta., B.C.:**—Provincial Bureaus of Statistics
Royal Canadian Mounted Police General law enforcement duties in any part of Canada; also acts on behalf of Attorneys General as Provincial Police in all provinces except Que. Ont., B.C. Enforces the law regarding traffic in drugs and liquor; acts on behalf of welfare of Eskimos in Arctic Islands	**LAW ENFORCEMENT**	**All Provinces:**—Dept. of Attorney General
Clerk of the Privy Council Clerk of the Senate of Canada Clerk of the House of Commons	**LEGISLATION**	**All Provinces:**—Dept. of Attorney General
□● Department of Mines and Resources Bureau of North-west Territories and Yukon Affairs □● Dominion Bureau of Statistics (Statistical Report covering Canada)	**LIQUOR CONTROL**	**P.E.I.:**—Attorney General **N.S., Que.:**—Liquor Commission **N.B., Ont., Alta., B.C.:**—Liquor Control Boards **Man.:**—Liquor Control Commission **Sask.:**—Liquor Commission
□○● Department of Agriculture Live-stock and Live-stock Products Division (for marketing data) Live-stock and Poultry Division (for breeding programmes and testing data) Health of Animals Division (for contagious diseases, meat inspection, etc.) Animal Husbandry Division, Experimental Farms Service (for general information) Animal Pathology Division (for animal diseases other than contagious) □● National Film Board (photographs) □● Dominion Bureau of Statistics	**LIVE STOCK**	**P.E.I., N.B., Ont., Man., Sask., Alta., B.C.:**—Depts. of Agriculture, Live-stock Branches **N.S., Que.:**—Depts. of Agriculture, Animal Husbandry Branches *Additional:* **Que., Alta., B.C.:**—Provincial Bureaus of Statistics Dominion Bureau of Statistics
□● Department of Mines and Resources Lands, Parks and Forests Branch □● Dominion Bureau of Statistics	**LUMBERING**	**N.S., Que., Ont., B.C.:**—Depts. of Lands and Forests **N.B., Alta.:**—Depts. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development
Department of Secretary of State (for Patents, Copyright and Trade Marks, and Incorporation of Companies and Companies Act) Department of Trade and Commerce Industrial Development Division □● National Film Board (films and photographs) □● Dominion Bureau of Statistics	**MANUFACTURING**	**P.E.I.:**—Dept. of Reconstruction **N.S.:**—Dept. of Industry and Publicity **N.B.:**—Dept. of Industry and Reconstruction **Que.:**—Dept. of Trade and Commerce **Ont.:**—Dept. of Planning and Development Trade and Industry Branch **Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce **Sask.:**—Dept. of Natural Resources and Industrial Development **Alta., B.C.,**—Depts. of Trade and Industry *Additional:* **Que., Ont., B.C.:**—Bureaus of Statistics Dominion Bureau of Statistics (summaries of provincial data)
□● Department of Mines and Resources Surveys and Engineering Branch (general maps, hydrographic charts, air navigation charts) Mines and Geology Branch (geological and topographical maps) □● Dominion Bureau of Statistics (economic and census maps)	**MAPS AND CHARTS**	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
□● Dominion Bureau of Statistics Merchandising and Services	**MERCHANDISING**	**Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce **Alta., B.C.:**—Depts. of Trade and Industry
□● Department of Mines and Resources Mines and Geology Branch □● Dominion Bureau of Statistics (for production data)	**METALS** (*other than* **Iron and Steel)**	**N.S., Que., Ont., B.C.:**—Depts. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development Dominion Bureau of Statistics (summaries of provincial data) ●□
□● Department of Mines and Resources Mines and Geology Branch □● Dominion Bureau of Statistics (for production data)	**MINING AND MINERALS**	**N.S., Que., Ont. B.C.:**—Depts. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development Dominion Bureau of Statistics (summaries of provincial data)
□● National Film Board *Produces and distributes films, still photos and other visual materials of national and cultural interest, newsreel films, theatrical films and short documentary films*	**MOTION PICTURES**	**N.S., Que., Man., Sask., Alta.** and **B.C.** produce educational or informational films **P.E.I.,** and **N.B.** buy such films but do not produce themselves Most Provinces have set up Motion Picture Censorship Boards for censoring films prior to public exhibition *Details may be obtained by application to the Province concerned*
□● Dominion Bureau of Statistics Public Finance Branch	**MUNICIPAL AFFAIRS**	**N.S., Que., Ont., Sask., Alta., B.C.:**—Depts. of Municipal Affairs **N.B.:**—Dept. of Federal and Municipal Relations **Man.:**—Dept. of Municipal Commissioner
□● Dominion Bureau of Statistics	**NATIONAL INCOME**	
Department of Public Works (for construction and operation of graving docks), Navigable Waters Protection Act, Chief Engineer's Branch (for marine works construction)	**NAVIGATION**	
□● Department of National Health and Welfare □○● Department of Agriculture	**NUTRITION**	
□● Department of Mines and Resources Mines and Geology Branch □● National Film Board □● Dominion Bureau of Statistics	**OIL**	**N.S.:**—Dept. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Ont., B.C.:**—Depts. of Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development Dominion Bureau of Statistics (summaries of provincial data) ●□
Department of National Health and Welfare	**OLD AGE PENSIONS (Including Pensions for the Blind)**	**P.E.I.:**—Old Age Pension Commission Charlottetown **N.S.:**—The Old Age Pensions Board, Halifax **N.B.:**—The Old Age Pensions Board, Fredericton **Que.:**—Quebec Old Age Pensions Commission, Quebec **Ont.:**—Ontario Old Age Pensions Commission, Toronto **Man.:**—The Old Age and Blind Persons' Pensions Board, Winnipeg **Sask.:**—Social Welfare Board, Regina **Alt.:**—Old Age Pensions Board, Edmonton **B.C.:**—Old Age Pension Board, Vancouver

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
House of Commons Senate of Canada Library of Parliament	**PARLIAMENT**	**P.E.I., N.B., Man., Sask., Alta., B.C.** —Legislative Assembly **N.S., Ont.:**—House of Assembly **Que.:**—Legislative Council Legislative Assembly
● Department of National Health and Welfare (additional material available upon direct application to Physical Fitness Division of this Department) National Council of Physical Fitness □● National Film Board (filmstrip and photo-display)	**PHYSICAL FITNESS AND RECREATION** *See also* **Health**	**P.E.I.:**—Dept. of Education, Physical Fitness Division **N.S.:**—Dept. of Public Health Physical Fitness Division **N.B.:**—Dept. of Education **Ont.:**—Dept. of Education, Special Services Branch Ontario Athletic Commission **Man.:**—Dept. of Health and Public Welfare Physical Fitness Division **Sask.:**—Dept. of Health, Physical Fitness Division **B.C.:**—Dept. of Education, Recreation and Physical Education Division
□● Dominion Bureau of Statistics (for all census population statistics) Department of Mines and Resources Indian Affairs Branch (for Indians) Lands, Parks and Forests Branch (for Eskimos) Department of Secretary of State Canadian Citizenship Branch Naturalisation Branch	**POPULATION**	**Ont.:**—Bureau of Statistics and Research
Post Office Department Administration Branch (for general postal information, postage rates, etc.) Communications Branch (for air and land mail services, and railway mail service) Philatelic Division of the Financial Branch (for philately)	**POST OFFICE**	
□○● Department of Agriculture Poultry Division, Experimental Farms Service (for general information) Livestock and Livestock Products Division (for breeding programmes, hatchery regulations, etc.) Animal Pathology Division (for poultry diseases) □● National Film Board (films and photographs) □● Dominion Bureau of Statistics	**POULTRY**	**P.E.I., N.S., Man.:**—Depts. of Agriculture **N.B., Que., Sask., Alta., B.C.:**—Depts. of Agriculture, Poultry Branches **Ont.:**—Ontario Agriculutral College (Guelph), Poultry Division Dominion Bureau of Statistics (summaries of provincial data) ●□
	POWER *See* **Electric Power**	
□● Dominion Bureau of Statistics Prices Statistics	**PRICES**	**Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce **Alta.:**—Dept. of Trade and Industry
□● Dominion Bureau of Statistics Transportation and Public Utilities Branch	**PUBLIC UTILITIES** *See also* **Electric Power**	**P.E.I.:**—Public Utilities Board **N.S.:**—Board of Commissioners of Public Utilities **N.B.:**—Public Utilities Commission **Man.:**—Manitoba Telephone System Municipal and Public Utility Board **Alta.:**—The Board of Public Utility Commissioners The Natural Gas Utilities Board **B.C.:**—Public Utilities Commission
Department of Public Works Department of Reconstruction and Supply	**PUBLIC WORKS**	**P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C.:**—Depts. of Public Works **N.S.:**—Dept. of Highways and Public Works

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
● Department of Transport Radio Division (all matters affecting licenses and facilities) Canadian Broadcasting Corporation □● National Film Board □● Dominion Bureau of Statistics	**RADIO**	**Que.:**—Quebec Radio Bureau **Man.:**—Manitoba Telephone System **Alta.:**—Alberta Government Radio Station
	RAILWAYS *See* **Transportation**	
Department of Reconstruction and Supply Publicity Branch (for general inquiries) Public Projects Branch Wartime Housing Limited Central Mortgage and Housing Corporation	**RECONSTRUCTION**	**P.E.I.:**—Dept. of Reconstruction **N.S.:**—Depts. of Agriculture and Marketing and Industry and Publicity **N.B.:**—Dept. of Industry and Reconstruction **Que.:**—Depts. of Lands and Forests, Labour, Roads, Trade and Commerce, Social Welfare and Youth **Ont.:**—Dept. of Planning and Development **Man.:**—Post War Reconstruction Committee **Sask.:**—Dept. of Reconstruction and Rehabilitation, Reconstruction Division **Alta.:**—Dept. of Economic Affairs **B.C.:**—Bureau of Reconstruction
	RESEARCH *See* **Economic Research and Scientific Research**	
□● National Research Council Laboratory investigation in applied biology, chemistry, mechanical engineering including aeronautics and hydraulics, physics, electrical engineering and radio, medical research, atomic energy and building research *Inquiries for general research information should be addressed to the Technical Information Services* □● Department of Mines and Resources Lands, Parks and Forests Branch (forest products) Mines and Geology Branch (geology, metallurgy) Surveys and Engineering Branch (engineering, geodesy, astrophysics, astronomics, seismology, aerial mapping) ○● Department of Agriculture Science Service (for research in animal and plant pathology, bacteriology, chemistry, entomology, etc.) Experimental Farms Service (for research in agricultural engineering, crop production, breeding and genetics, plant and animal nutrition, etc.) ● Department of Transport (aviation, radio, meteorology)	**SCIENTIFIC RESEARCH**	**N.S.:**—Nova Scotia Research Foundation **Que.:**—Dept. of Trade and Commerce Scientific Research Bureau **Ont.:**—Ontario Research Commission Ontario Research Foundation **Man.:**—Various Depts. such as Health and Welfare, Mines and Natural Resources, Agriculture **Sask.:**—Research Council **Alta.:**—Alberta Research Council
Department of Trade and Commerce Standards Division (for inquiries on electricity and gas inspection, weights and measures, and precious metals marking. Inquiries relating to commodity standards and 'Trade Mark Canada' matters formerly under Dominion Trade and Industry Commission are now dealt with by this Division □● Department of National Health and Welfare (for standards and method of control of quality or potency of food and drugs) ○● Department of Agriculture (for inquiries on standards for meat and canned food, fruit, honey, vegetable and dairy products, etc.) □● National Research Council Canadian Government purchasing standards	**STANDARDS**	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
	STEAMSHIPS *See* **Transportation**	
Department of National Revenue Department of Finance	**TAXATION**	**P.E.I.:**—Provincial Secretary-Treasurer **N.S.:**—Dept. of Provincial Treasurer **N.B.:**—Dept. of Provincial Secretary-Treasurer **Que.:**—Provincial Treasury Dept. **Ont.:**—Provincial Treasurer's Dept. **Man., Sask.:**—Treasury Dept. **Alta.:**—Dept. of Municipal Affairs **B.C.:**—Finance Dept.
	TELEGRAPHS AND TELEPHONES *See* **Communications**	
□● Department of Mines and Resources Mines and Geology Branch	**TOPOGRAPHY**	
Canadian Travel Bureau □● Department of Mines and Resources Lands, Parks and Forests Branch □● National Film Board (films and photographs) □● Dominion Bureau of Statistics	**TOURIST TRADE**	**P.E.I.:**—Publicity and Travel Bureau **N.S.:**—Dept. of Industry and Publicity **N.B.:**—Dept. of Lands and Mines Bureau of Information and Tourist Travel **Que.:**—Provincial Tourist Bureau **Ont.:**—Dept. of Travel and Publicity **Man.:**—Dept. of Mines and Natural Resources Travel and Publicity Bureau **Sask.:**—Bureau of Publicity, Tourist Bureau **Alta.:**—Dept. of Economic Affairs Alberta Travel Bureau **B.C.:**—Dept. of Trade and Industry B.C. Travel Bureau
Department of Secretary of State for Companies Act and Incorporation of Companies Patents, (Copyright and Trade Marks) Department of Trade and Commerce Foreign Trade Service (Trade Commissioner Service, imports, exports, commercial relations, tariffs of other countries, industrial development, trade publicity) Canadian Government Exhibition Commission Canadian Commercial Corporation Export Credit Insurance Corporation □● National Film Board (films) □● Dominion Bureau of Statistics External Trade Branch and Merchandising and Services Section	**TRADE**	**All Provinces:**—Provincial Secretaries for Incorporation of Companies under Provincial Law **P.E.I.:**—Dept. of Industry and Natural Resources **N.S.:**—Dept. of Industry and Publicity **N.B.:**—Dept. of Industry and Reconstruction **Que.:**—Dept. of Trade and Commerce **Ont.:**—Dept. of Planning and Development Trade and Industry Branch **Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce **Sask.:**—Dept. of Natural Resources and Industrial Development Trade Services Division **Alta., B.C.:**—Depts. of Trade and Industry
□● Department of Mines and Resources Surveys and Engineering Branch (for highways on Dominion lands, and national highways) Lands, Parks and Forests Branch (for highways in National Parks) ● Department of Transport (railways, civil aviation, marine services, steamship inspection, canals, etc.) Trans-Canada Air Lines □● National Film Board (films, filmstrips and photographs) □● Dominion Bureau of Statistics (statistics of transportation including highways, motor vehicles)	**TRANSPORTATION**	**P.E.I.:**—Dept. of Public Works and Highways **N.S.:**—Dept. of Highways and Public Works **N.B., Man.:**—Depts. of Public Works, Highway Branches **Que.:**—Dept. of Roads Transportation and Communications Board **Ont.:**—Dept. of Highways Ont. Northland Railways Commission **Sask.:**—Dept. of Highways and Transportation **Alta.:**—Dept. of Public Works, Highway Traffic Board **B.C.:**—Dept. of Public Works, Highway Traffic Board Railway Dept. Dominion Bureau of Statistics (summaries of provincial data) ●□

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—*cont.*

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
□● Department of Mines and Resources Lands, Parks and Forests Branch Indian Affairs Branch □● National Film Board (films and photographs) □● Dominion Bureau of Statistics (for general trapping statistics)	**TRAPPING** *See also* **Fur Farming**	**P.E.I.:**—Dept. of Agriculture **N.S., Ont.:**—Depts. of Lands and Forests **N.B., Alta.:**—Depts. of Lands and Mines **Que.:**—Dept. of Game and Fisheries **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development **B.C.:**—Attorney General's Dept. Provincial Game Commission Dominion Bureau of Statistics (summaries of provincial data) ●□
Department of Veterans Affairs Public Relations Branch (General Information, Rehabilitation, Treatment Services, Pensions, Land Settlement, Gratuities, Business and Professional Loans, War Veterans Allowances) Department of Reconstruction and Supply Veterans Housing Ltd. ● Department of Labour (unemployment insurance and out-of-work allowances, vocational training) □● National Film Board (films and photographs) ● Department of Mines and Resources Indian Affairs Branch (for Indians)	**VETERANS AFFAIRS**	**P.E.I.:**—Provincial Secretary **N.S.:**—Dept. of Public Welfare **N.B.:**—Dept. of Health and Social Services **Que.:**—Dept. of Social Welfare and Youth **Ont.:**—Dept. of Public Welfare, Soldiers Aid Commission **Man., B.C.:**—Depts. of Provincial Secretary **Sask.:**—Dept. of Reconstruction and Rehabilitation **Alta.:**—Veterans Welfare Advisory Commission
□● Dominion Bureau of Statistics □● Department of Mines and Resources Lands, Parks and Forests Branch (for North-west Territories and Yukon)	**VITAL STATISTICS**	**P.E.I.:**—Registrar of Births, Deaths and Marriages **N.S., Sask., Alta.:**—Depts. of Public Health Registrars General **N.B.:**—Dept. of Health and Social Service **Que., B.C.:**—Depts. of Health **Ont.:**—Dept. of Municipal Affairs, Registrar General's Branch **Man.:**—Dept. of Health and Public Welfare
● Department of Labour Industrial Relations Branch (fair wages) Research and Statistics Branch Legislation Branch □● Dominion Bureau of Statistics	**WAGES**	**All Provinces** except **Alta.:**—Dept. of Labour **Alta.:**—Dept. of Trade and Industry
□● Department of Mines and Resources Surveys and Engineering Branch	**WATER LEVELS**	
● Department of Transport Meteorological Division (Toronto) □● Department of Mines and Resources Surveys and Engineering Branch	**WEATHER**	
□● Department of National Health and Welfare (family allowances) ● Department of Labour Unemployment Insurance Commission Annuities Branch □● Department of Mines and Resources Indian Affairs Branch (for Indians) Lands, Parks and Forests Branch (for Eskimos) □● National Film Board (films and photographs)	**WELFARE** *For* **Welfare of Veterans** *See* **Veterans Affairs**	**P.E.I.:**—Dept. of Health and Welfare **N.S., Ont., Alta.:**—Depts. of Public Welfare **N.B.:**—Dept. of Health and Social Services **Que.:**—Dept. of Social Welfare and Youth **Man.:**—Dept. of Health and Public Welfare **Sask.:**—Dept. of Social Welfare **B.C.:**—Dept. of Welfare Dominion Bureau of Statistics (summaries of provincial data) ●□
● Department of Labour	**WORKMEN'S COMPENSATION**	**N.S., B.C.:**—Depts. of Labour, Workmen's Compensation Board **N.B., Ont., Sask., Alta.:**—Workmen's Compensation Board **Que.:**—Workmen's Compensation Commission **Man.:**—Dept. of Attorney General Workmen's Compensation Board

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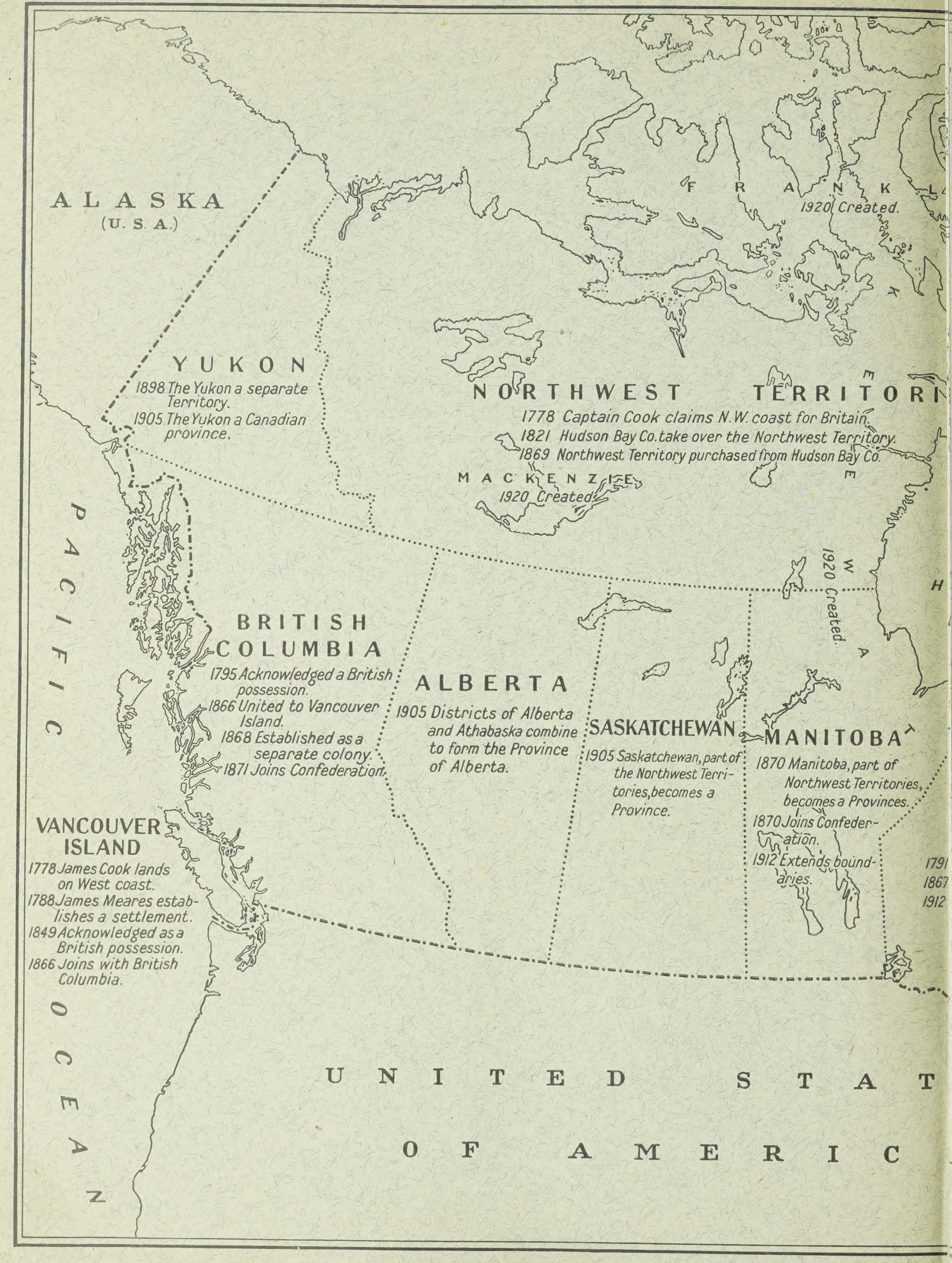
ALASKA
(U. S. A.)
YUKON
1898 The Yukon a separate Territory.
1905 The Yukon a Canadian province.
NORTHWEST TERRITORI
1778 Captain Cook claims N.W. coast for Britain.
1821 Hudson Bay Co. take over the Northwest Territory.
1869 Northwest Territory purchased from Hudson Bay Co.
F R A N K L
1920 Created.
MACKENZIE
1920 Created.
K E E W A T
1920 Created.
H
BRITISH COLUMBIA
1795 Acknowledged a British possession.
1866 United to Vancouver Island.
1868 Established as a separate colony.
1871 Joins Confederation.
ALBERTA
1905 Districts of Alberta and Athabaska combine to form the Province of Alberta.
SASKATCHEWAN
1905 Saskatchewan, part of the Northwest Territories, becomes a Province.
MANITOBA
1870 Manitoba, part of Northwest Territories, becomes a Provinces.
1870 Joins Confederation.
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1778 James Cook lands on West coast.
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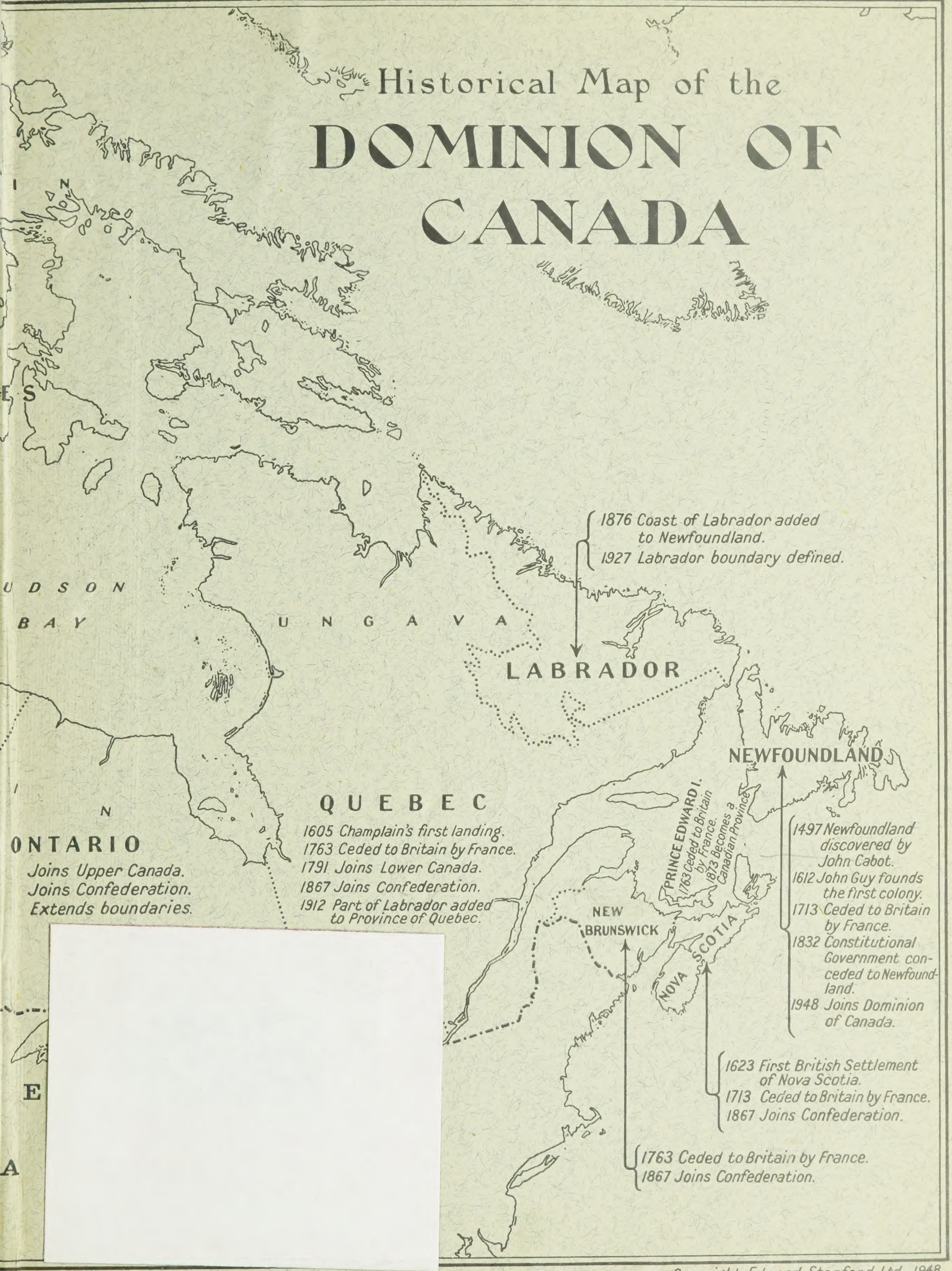
1849 Acknowledged as a British possession.
1866 Joins with British Columbia.
PACIFIC OCEAN
UNITED STAT
OF AMERIC

Historical Map of the

DOMINION OF CANADA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UNGAVA
UDSON
BAY
QUEBEC
ONTARIO
NEWFOUNDLAND
NEW BRUNSWICK
NOVA SCOTIA
PRINCE EDWARD I.
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1876 Coast of Labrador added to Newfoundland.
1927 Labrador boundary defined.

QUEBEC
1605 Champlain's first landing.
1763 Ceded to Britain by France.
1791 Joins Lower Canada.
1867 Joins Confederation.
1912 Part of Labrador added to Province of Quebec.

ONTARIO
Joins Upper Canada.
Joins Confederation.
Extends boundaries.

PRINCE EDWARD I.
1763 Ceded to Britain by France.
1873 Becomes a Canadian Province.

NEWFOUNDLAND
1497 Newfoundland discovered by John Cabot.
1612 John Guy founds the first colony.
1713 Ceded to Britain by France.
1832 Constitutional Government conceded to Newfoundland.
1948 Joins Dominion of Canada.

NOVA SCOTIA
1623 First British Settlement of Nova Scotia.
1713 Ceded to Britain by France.
1867 Joins Confederation.

NEW BRUNSWICK
1763 Ceded to Britain by France.
1867 Joins Confederation.

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